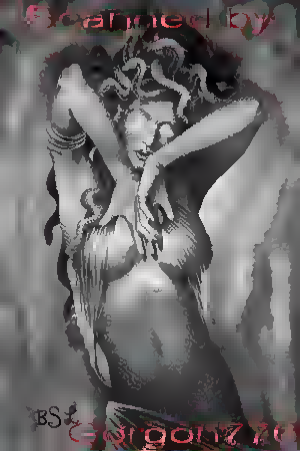


Galaxy
SCIENCE FICTION

DECEMBER 1953

35¢

ANC

DECEMBER 1953 GALAXY Science Fiction

BOOST YOUR EARNING POWER DURING THE HOURS THAT COUNT

"Every hour I spent on my I. C. S. Course has been worth $95.00 to me! My position, my $7,000 a year income, my home, my family's happiness—I owe it to spare-time training with I. C. S."

EVERY MAIL brings letters like this from men and women who studied I. C. S. courses in their spare time.

What are *you* doing with the hours after supper? Can you afford to let them slip by unimproved when you can easily make them mean so much?

No matter where you live, I. C. S. will come to you. No matter what your handicaps or achievements, whether you make $2,000 or $20,000 a year, I. C. S. has a plan to fit your needs exactly. No matter how limited your previous education, the simply written, fully illustrated I. C. S. textbooks make it easy to learn. No matter what career you may choose, some one of the 391 I. C. S. courses can be your springboard to success.

• • •

An hour or two a day spent with I. C. S. will prepare you for the position you want in the work you like best. Doubts it? Then put it up to us to prove it! Mark and mail this coupon —*now!* We'll send you full information plus *free* book, "How to Succeed."

INTERNATIONAL CORRESPONDENCE SCHOOLS

ICS

BOX 2252-C SCRANTON 9, PENNA.

Without cost or obligation, send me "HOW to SUCCEED" and the booklet about the course BEFORE which I have marked X:

ART
- ☐ Commercial Art
- ☐ Magazine and Book Illustrating
- ☐ Cartooning
- ☐ Show Card and Sign Lettering
- ☐ Fashion Illustrating

AUTOMOTIVE
- ☐ Automobile, Mechanic
- ☐ Auto Elec. Technician
- ☐ Auto Body Rebuilding and Refinishing
- ☐ Diesel—Gas Engines

AVIATION
- ☐ Aeronautical Engineering Jr.
- ☐ Aircraft Engine Mechanic
- ☐ Airplane Drafting

BUILDING
- ☐ Architecture
- ☐ Arch. Drafting
- ☐ Building Contractor
- ☐ Estimating
- ☐ Carpenter and Mill Work
- ☐ Carpenter Foreman
- ☐ Reading Blueprints
- ☐ House Planning
- ☐ Plumbing
- ☐ Heating
- ☐ Steam Fitting
- ☐ Air Conditioning
- ☐ Electrician

BUSINESS
- ☐ Business Administration
- ☐ Certified Public Accountant
- ☐ Accounting
- ☐ Bookkeeping
- ☐ Stenography and Typing
- ☐ Secretarial
- ☐ Federal Tax
- ☐ Business Correspondence
- ☐ Personnel and Labor Relations
- ☐ Advertising
- ☐ Retail Business Management
- ☐ Managing Small Business
- ☐ Sales Management
- ☐ Salesmanship
- ☐ Traffic Management

CHEMISTRY
- ☐ Chemical Engineering
- ☐ Chemistry
- ☐ Analytical Chemistry
- ☐ Petroleum—Nat'l Gas
- ☐ Pulp and Paper Making

CIVIL, STRUCTURAL ENGINEERING
- ☐ Civil Engineering
- ☐ Structural Engineering
- ☐ Surveying and Mapping
- ☐ Structural Drafting
- ☐ Highway Engineering
- ☐ Reading Blueprints
- ☐ Concrete Construction
- ☐ Sanitary Engineering

DRAFTING
- ☐ Aircraft Drafting
- ☐ Architectural Drafting
- ☐ Electrical Drafting
- ☐ Mechanical Drafting
- ☐ Structural Drafting
- ☐ Sheet Metal Drafting
- ☐ Mine Surveying and Drafting

ELECTRICAL
- ☐ Electrical Engineering
- ☐ Electrician
- ☐ Electrical Maintenance
- ☐ Electrical Drafting
- ☐ Electric Power and Light
- ☐ Lineman

HIGH SCHOOL
- ☐ High School Subjects
- ☐ College Preparatory
- ☐ Mathematics
- ☐ Commercial
- ☐ Good English

MECHANICAL AND SHOP
- ☐ Mechanical Engineering
- ☐ Industrial Engineering
- ☐ Industrial Supervision
- ☐ Foremanship
- ☐ Mechanical Drafting
- ☐ Machine Design-Drafting
- ☐ Machine Shop Practice
- ☐ Tool Design
- ☐ Industrial Instrumentation
- ☐ Machine Shop Inspection
- ☐ Reading Blueprints
- ☐ Toolmaking
- ☐ Gas—Electric Welding
- ☐ Heat Treatment—Metallurgy
- ☐ Sheet Metal Work
- ☐ Sheet Metal Pattern Drafting
- ☐ Refrigeration

POWER
- ☐ Combustion Engineering
- ☐ Diesel—Electric
- ☐ Electric Light and Power
- ☐ Stationary Steam Engineering
- ☐ Stationary Firemen

RADIO, TELEVISION, COMMUNICATIONS
- ☐ General Radio
- ☐ Radio Operator
- ☐ Radio Servicing—FM
- ☐ Television
- ☐ Electronics
- ☐ Telephone Work

RAILROAD
- ☐ Locomotive Engineer
- ☐ Diesel Locomotive
- ☐ Air Brakes ☐ Car Inspector
- ☐ Railroad Administration

TEXTILE
- ☐ Textile Engineering
- ☐ Cotton Manufacture
- ☐ Rayon Manufacture
- ☐ Woolen Manufacture
- ☐ Loom Fixing
- ☐ Finishing and Dyeing
- ☐ Textile Designing

HOME ARTS
- ☐ Dressmaking and Designing
- ☐ Cookery
- ☐ Tea Room Management

Name_____ Age_____ Home Address_____

City_____ State_____ Working Hours_____ A.M. to_____ P.M.

Occupation_____

Special tuition rates to members of the Armed Forces. Canadian residents send coupon to International Correspondence Schools Canadian, Ltd., Montreal, Canada

DECEMBER, 1953 Vol. 7, No. 3

Galaxy

SCIENCE FICTION

ALL ORIGINAL STORIES • NO REPRINTS!

CONTENTS

Cover by EMSH Offering SEASON'S GREETINGS TO OUR READERS

GALAXY *Science Fiction* is published monthly by Galaxy Publishing Corporation. Main offices: 421 Hudson Street, New York 14, N. Y. 35c per copy. Subscriptions: (12 copies) $3.50 per year in the United States, Canada, Mexico, South and Central America and U.S. Possessions. Elsewhere $4.50. Entered as second-class matter at the Post Office, New York, N. Y.

Printed in the U.S.A. by the Guinn Co., Inc. Title Reg. U.S. Pat. Off.

GONE TODAY

ONE of the more piteous sounds of our era is the disenchanted cry of Arthur Koestler, perhaps our most noted—surely our most vocal and persistent—disappointee. His eruptions are not as frequent as Old Faithful's in Yellowstone National Park, but they are not a bit less predictable. He has honeymooned with one absolute after another, beginning with Communism, and his shrill divorce suits have deafened us as regularly as if he had to follow a schedule.

It would seem that he had a little trouble meeting this hypothetical schedule, for, in a recent issue of *Harper's Bazaar,* he abjectly confesses that he was an "addict" of science fiction while living in America.

As far as I had previously known, we've been reading science fiction because we enjoyed the exercise of speculating on possibilities and the excitement of living vicariously all over time and the Universe.

Self-deluded fools that we are, we have been, according to Mr. Koestler, victims of a habit-forming vice, "like opium, murder thrillers and yoghurt diets," and he informs us that "a dim, inarticulate suspicion . . . that the human race may be a biological misfit doomed to extinction (is) one of the reasons for sudden interest in life on other stars."

Mr. Koestler might properly have called his indictment *I Escaped from Decadent Capitalistic Science Fiction,* and maybe he would have if there had been enough material for a book. Certainly such a book might have had a large sale, considering the millions who read and watch science fiction in magazines, books, TV and movies.

I think he was wise not to try, however—his wildly pointing finger turns out to be much too wild when one looks around to see where he is pointing.

I'll concede that opium is habit-forming. Though I'm less sure about murder thrillers, I won't argue. But the suggestion that there are people who can't take yoghurt or leave it alone is preposterous to anyone who has tasted the stuff. If an insatiable craving for goo with the texture and appearance of library paste and the flavor of brushless shaving cream can be developed, then chalk and tallow should be put on the narcotics list.

In terms of evolution, every race must be regarded as a bio-

(*continued* on *Page* 31)

THE DARK DOOR

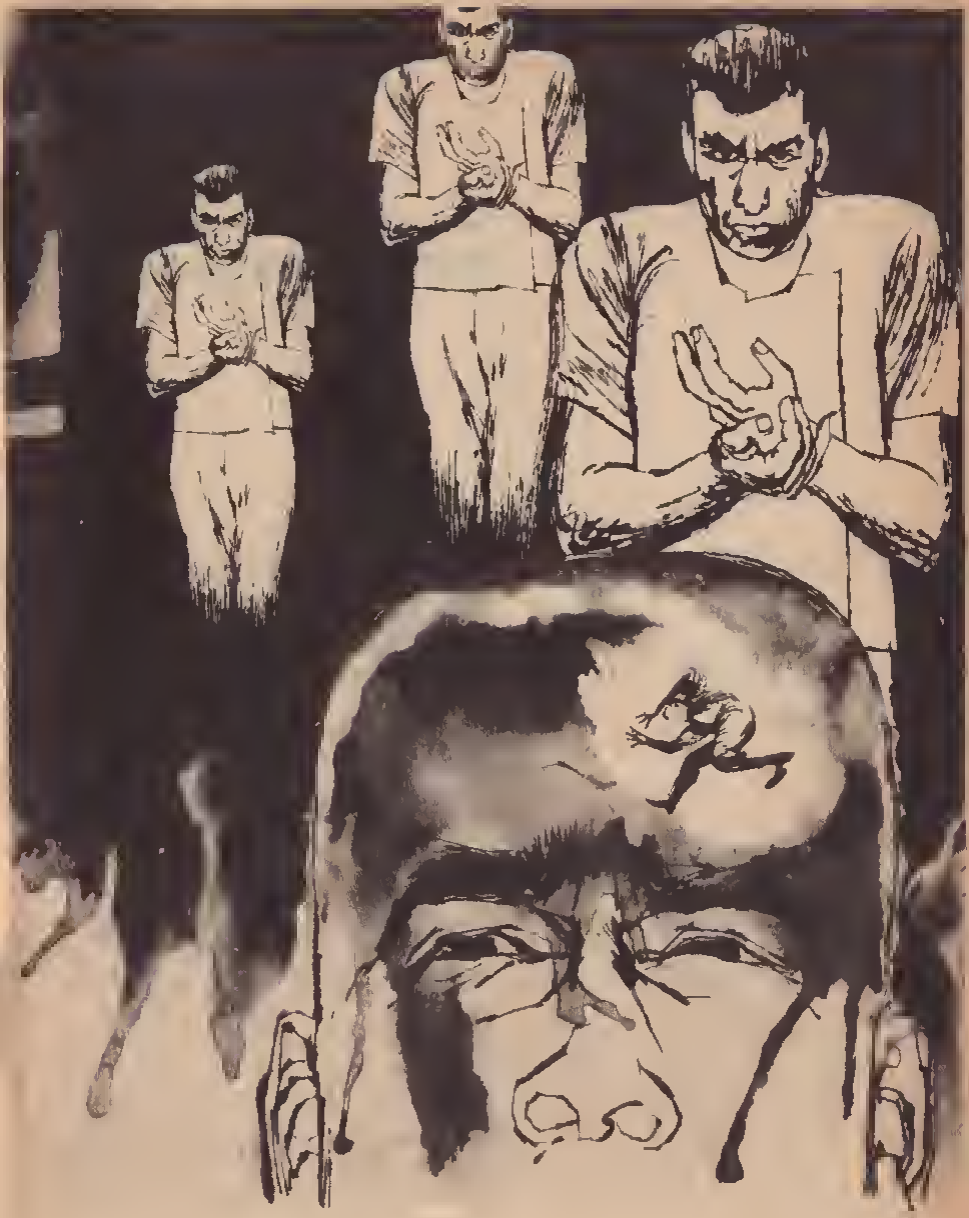
By ALAN E. NOURSE

The deadliest creatures known to Earth were hunting Scott . . . but the worst of it was that he couldn't defend himself from his friends!

I

IT was almost dark when he awoke, and lay on the bed, motionless and trembling, his heart sinking in the knowledge that he should never have slept. For almost half a minute, eyes wide with fear, he lay in the silence of the gloomy room, strain-

Illustrated by ASHMAN



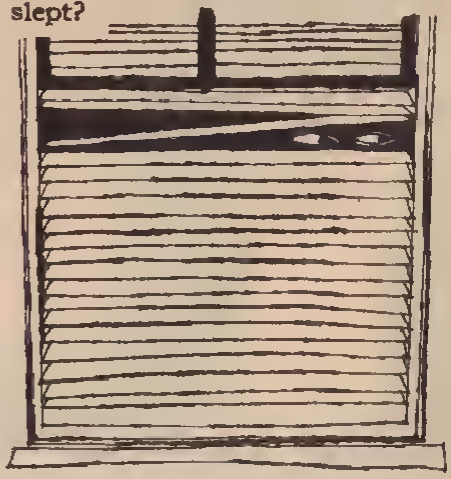
ing to hear some sound, some indication of their presence.

But the only sound was the barely audible hum of his wristwatch, and the dismal splatter of raindrops on the cobbled street outside. There was no sound to feed his fear, yet he knew then, without a flicker of doubt, that they were going to kill him.

He shook his head, trying to clear the sleep from his brain as he turned the idea over and over in his mind. He wondered why he hadn't realized it before—long before, back when they had first started this horrible, nerve-wracking cat-and-mouse game. The idea just hadn't occurred to him before. But he knew the game-playing was over. They wanted to kill him now. And he knew that ultimately they *would* kill him. There was no way for him to escape.

HE sat up on the edge of the bed, painfully, perspiration standing out on his bare back, and he waited for a long moment, listening. How could he have slept, exposing himself so helplessly? Every ounce of his energy, all the skill and wit and shrewdness at his command were necessary in this cruel hunt; yet he had taken the incredibly terrible chance of sleeping, of losing consciousness, leaving himself wide open and helpless against the attack which he knew was inevitable.

How much had he lost? How close had they come while he slept?



Fearfully he walked to the window, peered out, and felt his muscles relax a little. The gray, foggy streets were still light. He still had a little time before the terrible night began—

He stumbled across the small, old-fashioned room, sensing that action of some sort was desperately needed. The bathroom was small; he stared at his face in the battered, stained reflector unit, shocked at the red-eyed stubble-faced apparition that stared out at him.

This is Harry Scott, he thought, thirty-two years old, and at the prime of life—but not the same Harry Scott that started out on this ridiculous quest so many

months ago. This Harry Scott was being hunted like an animal, driven by fear, helpless—and sure to die, unless he could find an escape, somehow. But there were too many of them for him to escape, and they were too clever, and they *knew* he knew too much.

He stepped into the shower-shave unit, trying to relax, to collect his racing thoughts — above all, trying to stay this fear that burned through his mind, driving him to panic and desperation. The memory of the last hellish night was too stark in his mind to allow relaxation — the growing fear, the silent, desperate hunt through the night; the realization that their numbers were increasing; his frantic search for a hiding place in the New City; and finally his panic-stricken, pell-mell flight down into the alleys and cobbled streets and crumbling frame buildings of the Old City . . . Even more horrible, the friends who had turned on him, who turned out to be *like* them.

Back in the bedroom, he lay down again, his body still tense. There were sounds in the building, footsteps moving around on the floor overhead, a door banging somewhere down on the street. With every sound, every breath of noise, his muscles tightened still further, freezing him in fear. His own breath was shallow and rapid in his ears as he lay, listening, waiting.

IF only something would happen! He wanted to scream, to bang his head against the wall, to run about the room smashing his fist into doors, breaking every piece of furniture. It was the *waiting*, the eternal waiting, and running, waiting some more, feeling the net drawing tighter and tighter as he waited, feeling the measured, unhurried tread behind him, always following, coming closer and closer, as though he were a mouse on a string, twisting and jerking helplessly.

If only they would move, do something he could counter.

But he wasn't even sure any more that he could detect them. And they were so careful never to move into the open.

He jumped up feverishly, moved to the window, peered between the slats of the dusty, old-fashioned blind out at the street below.

An empty street at first . . . wet, gloomy. He saw no one. Then he caught the flicker of light in an entry several doors down and across the street, as a dark figure sparked a cigarette to life, and Harry felt the chill run down his back again. Still there, then, still waiting, a hidden figure, always present, always waiting . . .

Harry's eyes scanned the rest of the street rapidly. Two three-wheelers rumbled by, their rubber hissing on the wet street. One of them carried the blue-and-white of the Old City police, but the car didn't slow up or hesitate as it passed the dark figure in the doorway. And they would never help him anyway, Harry thought bitterly. He had tried that before, and met with ridicule and threats. There would be no help from the police in the Old City.

And then he saw another figure, coming around a corner. There was something vaguely familiar about the tall body and broad shoulders as the man walked across the wet street, something Harry vaguely recognized from somewhere during the spinning madness of the past few weeks.

The man's eyes turned up toward the window for the briefest instant, then returned steadfastly to the street. Oh, they were sly, so damned sly! You could never spot them looking at you, never for *sure*, but they were always there, always nearby. And there was no one he could trust any longer, no one to whom he could turn.

Not even George Webber.

SWIFTLY his mind reconsidered that possibility as he watched the figure move down the street. True, Dr. Webber had started him out on this search in the first place. But even Webber would never believe what he had found. Webber was a scientist, a researcher.

What could he do—go to Webber and tell him that there were men alive in the world who were *not* men, who were somehow men and something more?

Could he walk into Dr. Webber's office in the Hoffman Medical Center, walk through the gleaming bright corridors, past the shining metallic doors, and tell Dr. Webber that he had found people alive in the world who could actually see in four dimensions, live in four dimensions, *think* in four dimensions?

Could he explain to Dr. Webber that he knew this simply because in some way he had sensed them, and traced them, and discovered them; that he had not one iota of proof, except that he was being followed by them, hunted by them, even now, in a room in the Old City, waiting for them to strike him down?

He shook his head, almost sobbing. That was what was so horrible. He couldn't tell Webber, because Webber would be certain that he had gone mad, just like the rest. He couldn't tell anyone, he couldn't do anything. He could just wait, and run, and wait—

It was almost dark now and the creaking of the old board house intensified the fear that tore at Harry Scott's mind. Tonight was the night; he was sure of it. Maybe he had been foolish in coming down here to the slum area, where the buildings were relatively unguarded, where anybody could come and go as he pleased. But the New City had hardly been safer, even in the swankiest private chamber in the highest building. They had had agents there, too, hunting him, driving home the bitter lesson of fear they had to teach him. Now he was afraid enough; now they were ready to kill him.

Down below he heard a door bang, and froze, his back against the wall opposite the door. There were footsteps, quiet voices, barely audible. His whole body shook and his eyes slid around to the window. Still the figure in the doorway waited—but the other figure was not visible. He heard the steps on the stair, ascending slowly, steadily, a tread that paced itself with the powerful throbbing of his own pulse.

Then the telephone screamed out—

HE gasped. The footsteps were on the floor below, moving steadily upward. The telephone rang again and again; the shrill jangling filled the room insistently. He waited until he couldn't wait any longer. Then his hand fumbled in a pocket and leveled a tiny, dull-gray metal object at the door. With the other hand, he took the receiver from the hook.

"Harry! Is that you?"

His throat was like sandpaper and the words came out in a rasp. "What is it?"

"Harry, this is George—George Webber—"

His eyes were glued to the door. "All right. What do you want?"

"You've got to come talk to us, Harry. We've been waiting for weeks now. You promised us. We've *got* to talk to you."

Harry still watched the door, but his breath came easier. The footsteps moved with ridiculous slowness up the stairs, down the hall toward the room.

"What do you want me to do? They've come to kill me—"

There was a long pause. "Harry, are you sure?"

"Dead sure."

"Can you make a break for it?"

Harry blinked. "I could try. But it won't do any good—"

"Well, at least try, Harry. Get here to the Hoffman Center. We'll help you all we can—"

"I'll try." Harry's words were hardly audible as he set the receiver down with a trembling hand.

The room was silent. The footsteps had stopped. A wave of panic passed up Harry's spine; he crossed the room, threw open the door, stared up and down the hall, unbelieving.

The hall was empty. He started down toward the stairs at a dead run; and then, too late, saw the faint golden glow of a Parkinson Field across the dingy corridor. He gasped in fear, and screamed out once as he atruck it.

And then, for seconds stretching into hours, he heard his scream echoing and re-echoing down long, bitter miles of hollow corridor.

II

GEORGE Webber leaned back in the soft chair, turning a quizzical glance toward the younger man across the room. He lit a long black cigar.

"Well?" His heavy voice boomed out in the small room. "Now that we've got him here, what do you think?"

The younger man glanced uncomfortably through the glass wall panel into the small dark room beyond. In the dimness, he could barely make out the still form on the bed, grotesque with the electrode-vernier apparatus already in place at its temples. Dr. Manelli looked away sharply, and leafed through the thick sheaf of chart papers in his hand.

"I don't know," he said dully. "I just don't know what to think."

The other man's laugh seemed to rise from the depths of his huge chest. His heavy face creased into a thousand wrinkles. Dr. Webber was a large man, his broad shoulders carrying a suggestion of immense power that matched the intensity of his dark, wide-set eyes. He watched Dr. Manelli's discomfort grow, saw the younger doctor's ears grow red, and the almost cruel lines in his face were masked as he laughed still louder.

"Trouble with you, Frank, you just don't have the courage of your convictions."

"Well, I don't see anything so funny about it!" Manelli's eyes were angry. "The man has a suspicious syndrome—so you've followed him, and spied on him for weeks on end, which isn't exactly highest ethical practice in collecting a history. I still can't see how you're justified—"

Dr. Webber snorted, tossing his cigar down on the desk with disgust. "The man is insane. That's my justification. He's out of touch with reality—he's wandered into a wild, impossible, fantastic dream world. And we've got to get him out of it, because what he knows, what he's trying

to hide from us, is so incredibly dangerous that we don't dare let him go."

The big man stared at Manelli, his dark eyes flashing. "Can't you see that? Or would you rather sit back and let Harry Scott go the way that Paulus and Wineberg and the others went?"

"But to use the Parkinson Field on him—" Dr. Manelli shook his head hopelessly. "He'd offered to come over, George. We didn't need to use it."

"Sure, he offered to come—fine, fine. But supposing he changed his mind on the way? For all we know, he had us figured into his paranoia, too, and never would have come near the Hoffman Center."

Dr. Webber shook his head. "We're not playing a game any more, Frank. Get that straight. I thought it was a game a couple of years ago, when we first started. But it ceased to be a game when men like Paulus and Wineberg walked in sane, healthy men, and came out blubbering idiots. That's no game any more. We're onto something big. And, if Harry Scott can lead us to the core of it, then I can't care too much what happens to Harry Scott."

DR. Manelli stood up sharply, walked to the window, and looked down over the bright, clean buildings of the Hoffman Medical Center. Out across the terraced park that surrounded the glassed towers and shining metal of the Center rose the New City, tier upon tier of smooth, functional architecture, a city of dreams built up painfully out of the rubble of the older, ruined city.

"You could kill him," the young man said finally. "The psycho-integrator isn't any standard interrogative technique; it's dangerous and treacherous. You never know for sure just what you're doing when you dig down there in a man's brain tissue with those little electrode probes . . ."

"But we can learn the truth about Harry Scott," Dr. Webber broke in. "Six months ago, Harry Scott was working with us, a quiet, affable, pleasant young fellow, extremely intelligent, intensely cooperative. He was just the man we needed to work with us, an engineer who could take our data and case histories, study them, and subject them to a completely non-medical analysis. Oh, we had to have it done—the problem's been with us for a hundred years now, growing ever since the 1950s and 60s—insanity in the population, growing, spreading without rhyme or reason, insinuating itself into every nook and cranny of our civilized life."

The big man blinked at Manelli. "Harry Scott was the new approach. We were too close to the problem. We needed a non-medical outsider to take a look, to tell us what we were missing. So Harry Scott walked into the problem, and then abruptly lost contact with us. We finally track him down and find him gone, out of touch with reality—on the same wretched road that all the others went. With Harry, it's paranoia. He's being persecuted; he has the whole world against him, but most important—the factor we don't dare overlook—*he's no longer working on the problem.*"

Manelli shifted uneasily. "I suppose that's right—"

"Of course it's right!" Dr. Webber's eyes flashed. "Harry found something in those statistics. Something about the data, or the case histories, or something Harry Scott himself dug up opened a door for him to go through, a door that none of us ever dreamed existed. We don't know what he found on the other side of that door. Oh, we know what he *thinks* he found, all this garbage about people that look like everyone else, but who walk through walls when nobody's looking, who think around corners instead of in straight-line logic. But what he *really* found there, we don't have any way of telling. We just know that whatever he *really* found is something new, something unsuspected — something so dangerous it can drive an intelligent man into the wildest delusions of paranoid persecution—"

A new light appeared in Dr. Manelli's eyes as he faced the other doctor. "Wait a minute," he said softly. "The integrator is an *experimental* instrument, too."

Dr. Webber smiled slyly. "Now we're beginning to think," he said.

"But you'll see only what Scott himself believes. And *he* thinks his story is true."

"Then we'll have to break his story."

"*Break it?*"

"Certainly. For some reason, this delusion of persecution is far safer for Harry Scott than facing what he really found out. What we've got to do is to make this delusion *less* safe than the truth."

The room was silent for a long moment. Manelli lit a cigarette, his fingers trembling. "Let's hear it."

"We're *really* going to persecute Harry Scott—as he's never been persecuted before."

III

AT first he thought he was at the bottom of a deep well and he lay quite still, his eyes

clamped shut, wondering where he was and how he could possibly have come there. He could feel the dampness and chill of the stone floor under him, and nearby he heard the damp, insistent drip of water splashing against stone. He felt his muscles tighten as the dripping sound forced itself against his senses. Then he opened his eyes.

His first impulse was to scream out wildly, in unreasoning, suffocating fear. He fought it down, struggling to sit up in the blackness, his whole mind turned in bitter, hopeless hatred at the ones who had hunted him for so long, and now had trapped him.

Why?

Why did they torture him? Why not kill him outright, have done with it? He shuddered, and struggled to his feet, staring about him in horror.

It was not a well, but a little room, circular, with little rivulets of stale water running down the granite walls. The ceiling closed low over his head, and the only source of light came from the single doorway opening into a long, low stone passageway.

Wave after wave of panic rose into Harry's throat. Each time he fought down the urge to scream, to lie down on the ground and cover his face with his hands and scream in helpless fear. How could they have known the horror that lay in his own mind, the horror of darkness, of damp, slimy walls and scurrying rodents, of the clinging, stale humidity of dungeon passageways? He himself had seldom recalled it, except in his most hideous dreams, yet he had known such fear as a boy, so many years ago —and now he was in it. They had known somehow and *used it against him.*

Why?

He sank down on the floor, his head in his hands, trying to think straight, to find some clue in the turmoil bubbling through his mind that would tell him what had happened.

He had started down the hallway from his room, to find Dr. Webber and tell him about the other people—

He stopped short, looked up wide-eyed. *Had* he been going to Dr. Webber? Had he actually decided to go? Perhaps—yes, perhaps he had, though Webber would only laugh at such a ridiculous story. But the not-men who had hunted him would not laugh; to them, it would not be funny. They knew that it was true. And they knew he knew it was true.

But why not kill him? Why this torture? Why this horrible persecution that dug into the depths of his own nightmares to haunt him?

His breath came fast and a

chilly sweat broke out on his forehead. *Where* was he? Was this some long forgotten vault in the depths of the Old City? Or was this another place, another world, perhaps, that the not-men, with their impossible powers, had created to torture him?

HIS eyes sought the end of the hall, saw the turn at the end, saw the light which seemed to come from the end; and then in an instant he was running down the damp passageway, his pulse pounding at his temples, until he could hardly gasp enough breath as he ran. Finally he reached the turn in the corridor, where the light was brighter, and he swung around to stare at the source of the light, a huge, burning, smoky torch which hung from the wall.

Even as he looked at it, the torch went out, shutting him into inky blackness. The only sound at first was the desperation of his own breath; then he heard little scurrying sounds around his feet, and screamed involuntarily as something sleek and four-footed jumped at his chest with snapping jaws.

Shuddering, he fought the thing off, his fingers closing on wiry fur as he caught and squeezed. The thing went limp, and suddenly melted in bis bands, and he heard it splash as it struck the damp ground at his feet—

What were they doing to his mind?

He screamed out in horror, then followed the echoes of his own scream as he ran down the stone corridor, blindly, slipping on the wet stone floor, falling on his knees into inches of brackish water, scraping back to his feet with an uncontrollable convulsion of fear and loathing, only to run more—

The corridor suddenly broke into two and he stopped short. He didn't know how far, or how long, he had run, but it suddenly occurred to him that he was still alive, still safe. Only his mind was under attack, only his mind was afraid, teetering on the edge of control. And this maze of dungeon tunnels — where could such a thing exist, so perfectly outfitted to horrify him, so neatly fitting into his own pattern of childhood fears and terrors; where could such a *very individual* attack on his sanity have sprung—?

Except from his own mind.

For an instant, he saw a flicker of light, thought he grasped the edge of a concept previously obscure to his mind. He stared around him, at the mist swirling down the damp, dark corridors, and thought of the rat that had melted in his hand. Then sudden-

ly his mind was afire, searching through bis experience witb the strange not-men he had learned to detect, trying to remember everything be had learned and deduced about them before they began their brutal persecution.

They were men, and they looked like men, but they were different. They had other properties of mind, other capabilities that men did not have.

They were not-men, then. They could exist, and co-exist, two people in one frame, one person known, realized by all who saw, the other one concealed except from those who learned how to look. They could use their minds; they could rationalize correctly; they could use their curious four-dimensional knowledge to bring them to answers no three-dimensional man could reach—

But they couldn't project into men's minds!

CAREFULLY, Harry peered down the misty tunnels. They were clever, these creatures, and powerful. They had done their work of fear and terror on his mind skillfully, since they had discovered that he knew them. But they were limited, too; they couldn't make things happen that were not true—fantasies, illusions . . .

Yet this dungeon was an illusion. It *had* to be.

He cursed and started down the right-hand corridor, his heart sinking. There was no sucb place and he knew it. He was walking in a dream, a fantasy that had no substance, that could do no more than frighten him, drive him insane; yet he must already have lost his mind to be in such an illusion.

Why had he delayed? Why hadn't he gone to the Hoffman Center, laid the whole story before Dr. Webber and Dr. Manelli at the very first, told them what he had found? True, they might have thought him insane, but they wouldn't bave put him to torture. Tbey might even have believed him enough to investigate what he told them, and then the cat would have been out of the bag. The tale would have been incredible, but at least his mind would have been safe—

He turned down another corridor, walked suddenly into waist-deep water, so cold it numbed his legs, and he stopped again to force back the tendrils of unreasoning horror that brushed bis mind. Nothing could really harm him. He would merely wait until his mind finally reached a balance again. Tbere might be no end; it might be a ghastly trap, but he would wait . . .

Strangely, the mist was becoming greenish in color as it swirled

toward him in the damp vaulted passageway. His eyes began watering a little and the lining of his nose started to burn. He stopped short, newly alarmed, and stared at the walls, rubbing the tears away to clear his vision. The greenish-yellow haze grew thicker, catching his eyes and burning like a thousand furies, ripping into his throat until he was choking and coughing, as though great knives sliced through his lungs.

He tried to scream, and started running, blindly. Each gasping breath was an agony as the blistering gas dug deeper and deeper into his lungs. Reason departed from him; he was screaming incoherently as he stumbled up a stony ramp, crashed into a wall, spun around and smashed blindly into another. Then something caught at his shirt.

He felt the heavy planks and pounded iron scrollwork of a huge door, and threw himself upon it, wrenching at the rusty latch until the door swung open with a screech of rusty hinges; and he fell forward on his face. The door swung shut behind him.

He lay face down, panting and sobbing in the stillness.

COARSE hands grasped his collar, jerking him rudely to his feet, and he opened his eyes. Across the dim, vaulted room he could see the shadowy form of a man, a big man, with broad chest and powerful shoulders, a man whose rich voice Harry almost recognized, but whose face was deep in shadow. And as Harry wiped the tears from his tortured eyes, he heard the man's voice rumble out at him:

"Perhaps you've had enough now to change your mind about telling us the truth."

Harry stared, not quite comprehending. "The—the truth?"

The man's voice was harsh, cutting across the room impatiently. "The truth, I said. The problem, you fool—what you saw, what you learned—you know perfectly well what I'm referring to. But we'll swallow no more of this silly four-dimensional superman tale, so don't bother to start it."

"I—I don't understand you. It's—it's true—" Again he tried to peer across the room. "Why are you hunting me like this? What are you trying to do to me?"

"We want the truth. We want to know what you saw."

"But—but *you're* what I saw—You know what I found out—I mean—" He stopped, his face going white. His hand went to his mouth, and he stared still harder. "Who are you?" he whispered.

"The truth!" the man roared.

"You'd better be quick, or you'll be back in the corridor."

"*Webber!*"

"Your last chance, Harry."

Without warning, Harry was across the room, flying across the desk, crashing into the big man's chest. A stream of fury flew from his mouth as he fought, driving his fists into the powerful chest, wrenching at the thick, flailing arms of the startled man.

"*It's you!*" he screamed. "It's you that's been torturing me. It's you that's been hunting me down all this time, not the other people, you and your crowd of ghouls have been at my throat!"

He threw the big man off balance, dropped heavily on him as he fell back to the ground, glared down into the other's angry brown eyes.

And then, as though he had never been there at all, the big man vanished, and Harry sat back on the floor, his whole body shaking with frustrated sobs as his mind twisted in anguish.

He had been wrong, completely wrong—ever since he had discovered the not-men. Because he had thought *they* had been the ones who hunted and tortured him for so long. And now he knew how far he had been wrong. For the face of the shadowy man, the man behind the nightmare he was living, was the face of Dr. George Webber.

"YOU'RE a fool," said Dr. Manelli sharply, as he turned away from the sleeping figure on the bed to face the older man. "Of all the ridiculous things, to let him connect you with this!" The young doctor turned abruptly and sank down in a chair, glowering at Dr. Webber. "You haven't gotten to first base yet, but you've just given Scott enough evidence to free himself from integrator control altogether, if he gives it any thought. But I suppose you realize that."

"Nonsense," Dr. Webber retorted. "He had enough information to do that when we first started. I'm no more worried now than I was then. I'm sure he doesn't know enough about the psycho-integrator to be able to voluntarily control the patient-operator relationship to any degree. Oh, no—he's safe enough. But you've missed the whole point of that little interview." Dr. Webber grinned at Manelli.

"I'm afraid I have. It looked to me like useless bravado."

"The persecution, man, the *persecution!* He's shifted his sights! Before that interview, the not-men were torturing him, remember? Because they were afraid he would report his findings to me, of course. But now it's *I* that's against him." The grin widened. "You see where that leads?"

"You're talking almost as though you believed this story about a different sort of people among us."

Dr. Webber shrugged. "Perhaps I do."

"Oh, come now, George."

Dr. Webber's eyebrows went up and the grin disappeared from his face.

"Harry Scott believes it, Frank. We mustn't forget that, or miss its significance. Before Harry started this investigation of his, he wouldn't have paid any attention to such nonsense. But he believes it now."

"But Harry Scott is insane. You said it yourself."

"Ah, yes," said Dr. Webber. "Insane. Just like the others who started to get somewhere along those lines of investigation. Try to analyze the growing incidence of insanity in the population and you yourself go insane. You've got to be crazy to be a psychiatrist. It's an old joke, but it isn't very funny any more. And it's too much for coincidence.

"And then consider the nature of the insanity—a full-blown paranoia— oh, it's amazing. A cunning organization of men who are *not*-men, a regular fairy story, all straight from Harry Scott's agile young mind. But now it's *we* who are persecuting him, *and he still believes his fairy tale*—"

"So?"

Dr. Webber's eyes flashed angrily. "It's too neat, Frank. It's clever, and it's powerful, whatever we've run up against. But I think we've got an ace in the hole. We have Harry Scott."

"And you really think he'll lead us somewhere?"

Dr. Webber laughed. "That door I spoke of that Harry peeked through—I think he'll go back to it again. I think he's started to open that door already. And this time I'm going to follow him through."

IV

IT seemed incredible, yet Harry Scott knew he had not been mistaken. It had been Dr. Webber's face he had seen—a face no one forgot, an unmistakable face. And that meant that it had been Dr. Webber who had been persecuting him.

But why? He had been going to report to Webber when he had run into that golden field in the rooming-house hallway. And then suddenly things had changed—

Harry felt a chill reaching to his fingers and toes. Yes, something had changed, all right. The attack on him had suddenly become butcherous, cruel, sneaking into his mind somehow to use his most dreaded nightmares against him. There was no telling what

new horrors might be waiting for him. But he knew that he would lose his mind unless he could find an escape.

He was on his feet, his heart pounding. He had to get out of here, wherever he was. He had to get back to town, back to the city, back to where people were again. If he could find a place to hide, a place where he could rest, he could try to think his way out of this ridiculous maze, or at least try to understand it.

He wrenched at the door to the passageway, started through, and smashed face-up against a solid brick wall.

He cried out and jumped back from the wall. Blood trickled from his nose. The door was *walled up*, the mortar dry and hard.

Frantically, he glanced around the room. There were no other doors, only the row of tiny windows around the ceiling of the room, pale, ghostly squares of light.

He pulled the chair over to the windows, peered out through the cobwebbed openings to the corridor beyond.

It was not the same hallway as before, but an old, dirty building corridor, incredibly aged, with bricks sagging away from the walls. At the end he could see stairs, and even the faintest hint of sunlight coming from above.

Wildly, he tore at the masonry of the window, chipping away at the soggy mortar with his fingers until he could squeeze through the opening. He fell to the floor of the corridor outside.

It was much colder and the silence was no longer so intense. He seemed to feel, rather than hear, the surging power, the rumble of many machines, the little, almost palpable vibrations from far above him.

He started in a dead run down the musty corridor to the stairs and began to climb them, almost stumbling over himself in his eagerness.

After several flights, the brick walls gave way to cleaner plastic, and suddenly a brightly lighted corridor stretched before him.

Panting from the climb, Harry ran down the corridor to the end, wrenched open a door, and looked out anxiously.

HE was almost stunned by the bright light. At first he couldn't orient himself as he stared down at the metal ramp, the moving strips of glowing metal carrying the throngs of people, sliding along the thoroughfare before him, unaware of him watching, unaware of any change from the usual. The towering buildings before him rose to unbelievable heights, bathed in ever-changing rainbow colors,

and he felt his pulse thumping in his temples as he gaped.

He was in the New City, of that there was no doubt. This was the part of the great metropolis which had been built again since the devastating war that had nearly wiped the city from the Earth a decade before. These were the moving streets, the beautiful residential apartments, following the modern neo-functional patterns and participational design which had completely altered the pattern of city living. The Old City still remained, of course—the slums, the tenements, the skid-rows of the metropolis—but this was the teeming heart of the city, a new home for men to live in.

And this was the stronghold where the not-men could be found, too. The thought cut through Harry's mind, sending a tremor up his spine. He had found them here; he had uncovered his first clues here, and discovered them; and even now his mind was filled with the horrible, paralyzing fear he had felt that first night when he had made the discovery. Yet he knew now that he dared not go back where he had come from.

At least he could understand why the not-men might have feared and persecuted him, but he could not understand the horrible assault that Dr. Webber had unleashed. And somehow he found Dr. Webber's attack infinitely more frightening.

He seemed to be safe here, though, at least for the moment.

QUICKLY he moved down onto the nearest moving ramp, heading toward the living section of the New City. He knew where he could go there, where he could lock himself in, a place where he could think, possibly find a way to fight off Dr. Webber's attack of nightmares.

He settled back on the seat, watching the city moving past him for several minutes before he noticed the curious shadow-form which seemed to whisk out of his field of vision every time he looked—

They were following him again! He looked around wildly as the strip moved swiftly through the cool evening air. Far above, he could see the shimmering, iridescent screen which still stood to protect the New City from the devastating virus attacks which might again strike down from the skies without warning. And far ahead he could see the magnificent "bridge" formed by the strip crossing over to the apartment area, where the thousands who worked in the New City were returning to their homes.

And still someone was following him . . .

Then he heard the sound, so close to his ear he jumped, yet so small he could hardly identify it as a human voice. "What was it you found, Harry? What did you discover? Better tell, better tell—"

He swung around, staring, seeing nothing but the nearby passengers, and the dark, intangible shadow which he couldn't quite see.

"Better tell us, Harry—better tell. Unless you want the nightmares to start again . . ."

He shook his head, fear rising up in his chest. Voices in his ear, illusions . . . they couldn't be happening. He tried stuffing his fingers into his ears, but the voice followed him, even through his fingers.

"The nightmares, Harry—you haven't even tasted horror yet—unless you tell us what you discovered—"

"No, no!" The words burst from his lips inadvertently. A dozen faces turned sharply toward him, a dozen pair of eyes shifted away in embarrassment. He cursed himself under his breath, and tried to sink back in the seat, tried to relax and regain control of his trembling fingers.

Above all, he knew that he dared not attract attention, arouse suspicion among the passers-by. There was too much insanity in the world for the authorities to take any chance on outbreaks of violence. Any suspicious action, he knew, would bring a quick arrest and an examination that might put him in an asylum. And that chance he dared not take, not until he found some way to protect himself from Webber's attack.

"Better tell us, Harry—*better tell*—"

HE saw the rift in the moving strip coming, far ahead, a great, gaping rent in the metal fabric of the swiftly moving road, as if a huge blade were slicing it down the middle. Harry's hand went to his mouth, choking back a scream as the hole moved with incredible rapidity down the center of the strip, swallowing up whole rows of the seats, moving straight toward his own.

He glanced in fright over the side just as the strip moved out on the "bridge" and he gasped as he saw the towering canyons of buildings fall far below the road, saw the seats tumble end over end, heard the sounds of screaming blend into the roar of air by his ears.

Then the rift screamed by him with a demoniac whine and he sank back into his seat, gasping as the two cloven halves of the

strip clanged back together again.

He stared at the people around him on the strip and they stared back at him, mildly, unperturbed, and returned to their evening papers as the strip passed through the first local station on the other side of the "bridge."

And then Harry Scott was on his feet, moving swiftly across the slower strips for the exit channels. He noted the station stop vaguely, but his only thought now was speed, desperate speed, fear-driven speed to put into action the plan that had suddenly burst into his mind.

He knew that he had reached his limit. He had come to a point beyond which he couldn't fight alone.

Somehow, Webber bad burrowed into his brain, laid his mind open to attacks of nightmare and madness that he could never hope to figbt. Facing this alone, be would lose his mind. His only hope was to go for help to the ones he feared only slightly less, the ones who had minds capable of fighting back for him.

He crossed under the moving strips and boarded the one going back into the heart of the city again. Somewhere there, he hoped, he would find the help he needed. Somewhere back in that city were men he had discovered who were men and something more—

FRANK Manelli carefully took the blood pressure of the sleeping figure on the bed; then turned to the other man. "He'll be dead soon," he snapped. "Another few minutes now is all it'll take. Just a few more."

"Absurd. There's nothing in these stimuli that can kill him." George Webber sat tense, his eyes fixed on the pale fluctuating screen near the head of the bed.

"His own mind can kill him! He's on the run now; you've broken him loose from his nice safe paranoia. His mind is retreating, running back to some other delusion. It's escaping to the safety his fantasy people can afford him, these not-men he thinks about—"

"Yes, yes," agreed Dr. Webber, his eyes eager. "Oh, be's on the run now."

"But what will he do when he finds there aren't any 'not-men' to save him? What will he do then?"

Webber looked up, frowning and grim. "Then we'll know what he found through the dark door that he opened, that's wbat—"

"No, you're wrong! He'll die. He'll find nothing and the shock will kill him. My God, Webber, you can't tamper with a man's mind like this and hope to save bis life! You're obsessed; you've always been obsessed by this impossible search for something in

our society, some undiscovered factor to account for the mental illness, the divergent minds—but you can't kill a man to trace it down!"

"It's too neat," said Webber. "He comes back to tell us the truth, and we call him insane. We say he's paranoid, throw him in restraint, place him in an asylum—and we never *know* what he found. The truth is too incredible; when we hear it, it must be insanity we're hearing—"

The big doctor laughed outright, jabbing his thumb at the screen. "This isn't insanity we're seeing. Oh, no—this is the answer we're following. I won't stop now. I've waited too long for this show."

"Well, I stay stop it while he's still alive."

Dr. Webber's eyes were deadly. "Get out, Frank," he said softly. "I'm not stopping now."

His eyes returned to the screen, to the bobbing figure that the psycho-integrator traced on the fluorescent background. Twenty years of search had led him here, and now he knew the end was at hand.

V

IT was a wild, nightmarish journey. At every step, Harry's senses betrayed him: his wristwatch turned into a brilliant blue-green snake that snapped at his wrist; the air was full of snarling creatures that threatened him at every step, but he fought them off, knowing that they would harm him far less than panic would. He had no idea where to hunt, nor whom to try to reach, but he knew they were there in the New City, and somehow he knew they would help him, if only he could find them.

He stepped off the moving strip as soon as the lights of the center of the city were clear below, and stepped into the self-operated lift that sped down to ground level. From the elevator, he moved onto one of the long, honeycombed concourses, filled with passing shoppers who stared at the colorful, enticing three-dimensional displays.

At one of the intersections ahead, he spotted a visiphone station, and dropped onto the little seat before the screen. There had been a number, if only he could recall it. But as he started to dial, the silvery screen shattered into a thousand sparkling glass chips, showering the floor with crystal and sparks.

Harry cursed, grabbed the hand instrument, and jangled frantically for the operator. Before she could answer, the instrument grew warm in his hand, then hot and soft, like wax. Slowly, it melted and ran down his arm.

He bolted out into the stream of people again, trying desperately to draw some comfort from the crowd around him.

He felt utterly alone; he *had* to contact the not-men who were in the city, warn them, before they spotted him, of the attack he carried with him. If he were leading his pursuer, he could expect no mercy from the ones whose help he sought. He knew the lengths to which they would go to remain undetected in the society around them. Yet he had to find them.

In the distance, he saw a figure waiting, back against one of the show windows. Harry stopped short, ducked into a doorway, and peered out fearfully. Their eyes locked for an instant; then the figure moved on. Harry felt a jolt of horror surge through him. Dr. Webber hunting him in person!

He ducked out of the doorway, turned and ran madly in the opposite direction, searching with his eyes for an up escalator he could catch. Behind him he heard shots, heard the angry whine of tiny missiles past his ear.

He breathed in great, gasping sobs as he found an almost empty escalator, and bounded up it four steps at a time. Below, he could see Webber coming too, his broad shoulders forcing their way relentlessly through the mill of people.

Panting, Harry reached the top, checked his location against a wall map, and started down the long ramp which led toward the building he had tried to call.

ANOTHER shot broke out behind him. The wall alongside powdered away, leaving a gaping hole. On impulse, he leaped into the hole, running agilely through to the rear of the building as the weakened wall swayed and crumbled into a heap of rubble just as Webber reached the place where Harry had entered.

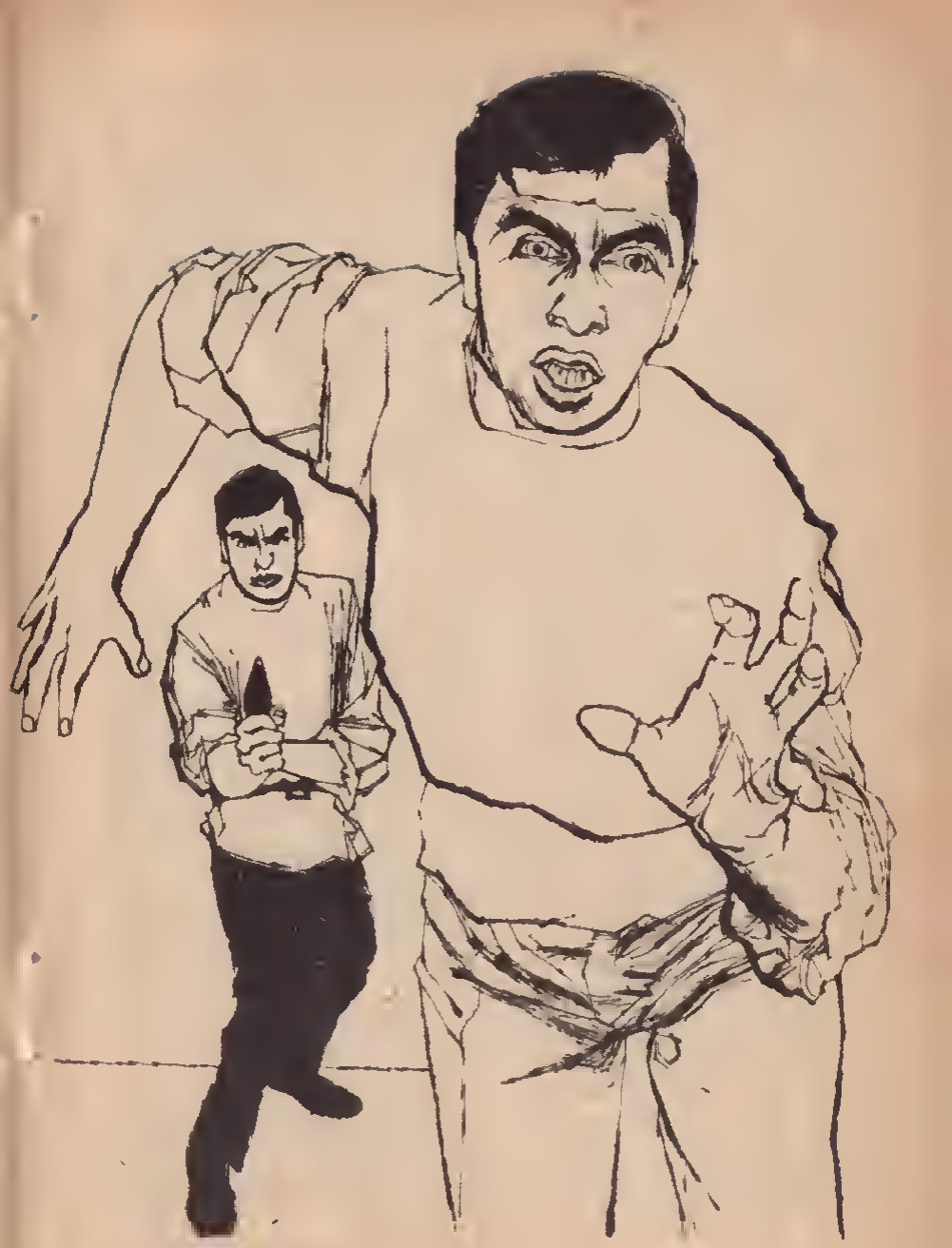
Harry breathed a sigh of relief and raced up the stairs of the building to reach a ramp on another level. He turned his eyes toward the tall building at the end of the concourse. There he could hide and relax and try, somehow, to make a contact—

Someone fell into step beside him, and took his arm gently but firmly. Harry jerked away, turning terrified eyes to the one who had joined him.

"Quiet," said the man, steering him over toward the edge of the concourse. "Not a sound. You'll be all right."

Harry felt a tremor pass through his mind, the barest touching of mental fingertips, a recognition that sent a surge of eager blood through his heart.

He stopped short, facing the man. "I'm being followed," he



gasped. "You can't take me anywhere you don't want Webber to follow, or you'll be in terrible danger—"

The stranger shrugged and smiled briefly. "You're not here. You're in a psycho-integrator. It can hurt you, if you let it. But it can't hurt me." He stepped up his pace slightly, and in a moment they turned abruptly into a darkened cul-de-sac.

Quite suddenly, they were moving *through* the wall of the building into the brilliantly lit lobby of the tall building. Harry gasped, but the stranger led him without a sound toward the elevator, stepped aboard with him, and sped upward, the silence broken only by the *whish-whish-whish* of the passing floors. Finally they stepped out into a quiet corridor and down through a small office door.

A man sat behind the desk in the office, his face quiet, his eyes very wide and dark. He hardly glanced at Harry, but turned his eyes to the other man.

"Set?" he asked.

"Couldn't miss now."

The man nodded and looked at last at Harry. "You're upset," he murmured. "What's bothering you?"

"Webber," said Harry hoarsely. "He's following me here. He'll spot you. I tried to warn you before I came, but I couldn't—"

THE man at the desk smiled. "Webber again, eh? Our old friend Webber. That's all right. Webber's at the end of his tether. There's nothing he can do to stop us. He's trying to attack with force, and he fails to realize that time and thought are on our side. The time when force would have succeeded against us is long past. But now there are many of us—almost as many as not."

Harry stared shrewdly at the man behind the desk. "Then why are you so afraid of Webber?" he asked.

"Afraid?"

"You know you are. Long ago you threatened me—if I reported to him. You watched me, played with me—Why are you afraid of him?"

The man sighed. "Webber is premature. We are stalling for time, that's all. We wait. We have grown from so very few, back in the 1940s and 50s—but the time for quiet usurpation of power has not quite arrived. But men like Webber force our hand, discover us, try to expose us—"

Harry Scott's face was white, his hands shaking. "And what do you do to them?"

"We—deal with them."

"And those like me?"

The man smiled lopsidedly. "Those like Paulus and Wineberg and the rest — they're happy, really, like little children. But one

like you is so much more useful." He pointed almost apologetically to the small screen on his desk.

Harry looked at it, realization dawning. He watched the huge, broad-shouldered figure moving down the hallway toward the door.

"Webber was dangerous to you?"

"Unbelievably dangerous. So dangerous we would use *any* means . . ."

Suddenly the door burst open and Webber stood in the door, a triumphant Webber, face flushed, eyes wide, as he stared at the man behind the desk.

The man smiled back and said, "Come on in, George. We've been waiting for you."

Webber stepped through the door. "Manelli, you fool!"

There was a blinding flash as he crossed the threshold. A faint crackle of sound reached Harry's ears; then, quite suddenly, the world blacked out . . .

It might have been minutes, or hours, or days. The man who had been behind the desk was leaning over Harry, smiling down at him, gently bandaging the trephine wounds at his temples.

"Gently," he said, as Harry tried to sit up. "Don't try to move. You've been through a rough time."

Harry peered up at him. "You're—not Dr. Webber."

"No. I'm Dr. Manelli. Dr. Webber's been called away—an accident. He'll be some time recovering. I'll be taking care of you."

Vaguely, Harry was aware that something was peculiar, something not quite as it should be. Then the answer dawned on him.

"The statistical analysis!" he exclaimed. "I was supposed to get some data from Dr. Webber about an analysis — something about rising insanity rates."

Dr. Manelli looked blank. "Insanity rates? You must be mistaken. You were brought here for an immunity examination, nothing more. But you can check with Dr. Webber—when he gets back."

VI

GEORGE Webber sat in the darkness of the little room, trembling, listening, his eyes wide in the thick, misty darkness. He knew it would be a matter of time now. He couldn't run much farther. He hadn't seen them, true. Oh, they had been very clever, but they thought they were dealing with a fool, and they weren't. He *knew* they'd been following him; he'd known it for a long time now.

It was just as he had been telling the man downstairs the night before: They were every-

where—your neighbor upstairs, the butcher on the corner, your own son or daughter, maybe even the man you were talking to—*everywhere!*

And of course he had to warn as many people as he possibly could before *they* caught him, throttled him off, as they had threatened to if he talked to anyone.

If only the people would *listen* to him when he told them how cleverly it was all planned, how it would be a matter of years, maybe even months or days before the change would happen, and the world would be quietly, silently taken over by the *other* people, the different people who could walk through walls and think in impossibly complex channels. And no one would know the difference, because business would go on as usual.

He shivered, sinking down lower on the bed. If only people would listen to him—

It wouldn't be long now. He had heard the stealthy footsteps on the landing below his room some time ago. This was the night they had chosen to make good their threats, to choke off his dangerous voice once and for all. There were footsteps on the stairs now, growing louder.

Wildly he glanced around the room as the steps moved down the hall toward his door. And then he was over at the window, throwing up the sash, screaming out hoarsely to the silent street below: "Look out! They're here, all around us! They're planning to take over! Look out! Look out . . . !"

And then the door burst open and there were two men moving toward him, grim-faced, dressed in white—tall, strong men with sad faces and strong arms.

One was saying, "Better come quietly, mister. No need to wake up the whole town."

—ALAN E. NOURSE

(*continued from page 3*)
logical misfit, doomed to eventual extinction. So must all individuals. Julian Huxley, offering a healthy and useful bit of advice, points out that humanity must live as if it will never be dispossessed. This, of course, is the adjustment most of us make personally and as members of our possibly epbemeral race. Mr. Koestler, though, apparently insists on belonging only to a race that will never, never, never become extinct. A word of caution: Don't be taken in by microbes, insects and fish. They may *look* as if they haven't changed in eons, but they really have.

"Life on other stars" is either a scientifically illiterate statement or unbridled literary license.

Elsewhere in bis bitter rue, Mr. Koestler, ever dissatisfied with anything less than a total and eternal absolute, quarrels with nobody but bimself over whether science fiction will be THE literature of THE future.

Here, I would say, is the major difference between Mr. K and practically all of us: Mr. K is relentlessly seeking the *one* economic system, the one philosophy, the *one* literature, the *one* future; we're willing to explore anything whatever that seems possible and will make an entertaining yet mind-prodding story.

We don't expect science fiction to be anything more than one of many accepted branches of literature. Nothing can be THE literature indefinitely. Limericks almost were, for a while, and so were soap operas.

Mr. K seems to curse this process of birth and death, but we're thankful for it. Limericks and soap operas and science fiction and everything else can become damnably irksome if there's no other choice.

Several science fiction writers have laboriously created histories of the future as frameworks for their stories. The exercise was good and so were many of the stories, but an author can't help getting ideas that contradict others he's written. To sell these "contradictions," some authors had to use pen names!

It doesn't bother us a bit to find each story negating every other story in an issue of GALAXY.

But such liberties must be absolute torment to an absolutist mind like Mr. K's. He came to science fiction for THE answer and is enraged because it has too many.

He is probably due to come screaming out of another dark room in a year or so.

Wonder what it will be this time.

—H. L. GOLD

FIVE BIG SPECIAL CHRISTMAS OFFERS

The gift that lasts a year

Please fill out all information on the easy, self-mailing, addressed envelope opposite. Fold as indicated. Include your check. We will take care of the rest This offer expires December 15, 1953.

OFFER 1

GALAXY SUBSCRIPTION

1 year—12 Big Issues—$3.00

Each additional gift subscription for one year

$2.85

OFFER 2

FIRST Beyond Subscription

6 Big Issues—$1.50

Each additional subscription of 6 Issues

$1.35 Each

OFFER 3

GALAXY for one year—12 Big Issues
BEYOND for 6 Big Issues } $4.35

Each additional combination of this for

$4.25

OFFER 4

GALAXY NOVELS

6 different during the year—$1.50

Additional sets of six during the year

$1.35

OFFER 5

Altogether Special Offer

First of this Combination

Galaxy 12—Beyond 6 And 6 Big Novels

$5.75

Each additional gift of this combination

$5.50

Fill Out Envelope

One man's poison

By ROBERT SHECKLEY

They could eat a horse, only luckily there was none . . . it might have eaten them first!

Illustrated by EMSH

HELLMAN plucked the last radish out of the can with a pair of dividers. He held it up for Casker to admire, then laid it carefully on the workbench beside the razor.

"Hell of a meal for two grown men," Casker said, flopping down in one of the ship's padded crash chairs.

"If you'd like to give up your share—" Hellman started to suggest.

Casker shook his head quickly. Hellman smiled, picked up the razor and examined its edge critically.

"Don't make a production out of it," Casker said, glancing at the ship's instruments. They were approaching a red dwarf, the only planet-bearing sun in the vicinity. "We want to be through with supper before we get much closer."

Hellman made a practice incision in the radish, squinting along the top of the razor. Casker bent closer, his mouth open.

Hellman poised the razor delicately and cut the radish cleanly in half.

"Will you say grace?" Hellman asked.

Casker growled something and popped a half in his mouth. Hellman chewed more slowly. The sharp taste seemed to explode along his disused tastebuds.

"Not much bulk value," Hellman said.

Casker didn't answer. He was busily studying the red dwarf.

AS he swallowed the last of his radish, Hellman stifled a sigh. Their last meal had been three days ago . . . if two biscuits and a cup of water could be called a meal. This radish, now resting in the vast emptiness of their stomachs, was the last gram of food on board ship.

"Two planets," Casker said. "One's burned to a crisp."

"Then we'll land on the other."

Casker nodded and punched a deceleration spiral into the ship's tape.

Hellman found himself wondering for the hundredth time where the fault had been. Could he have made out the food requisitions wrong, when they took on supplies at Calao station? After all, he had been devoting most of his attention to the mining equipment. Or had the ground crew just forgotten to load those last precious cases?

He drew his belt in to the fourth new notch he had punched.

Speculation was useless. Whatever the reason, they were in a jam. Ironically enough, they had more than enough fuel to take them back to Calao. But they would be a pair of singularly emaciated corpses by the time the ship reached there.

"We're coming in now," Casker said.

And to make matters worse, this unexplored region of space had few suns and fewer planets. Perhaps there was a slight possibility of replenishing their water supply, but the odds were enormous against finding anything they could eat.

"Look at that place," Casker growled.

Hellman shook himself out of his reverie.

The planet was like a round gray-brown porcupine. The spines of a million needle-sharp mountains glittered in the red dwarf's feeble light. And as they spiraled lower, circling the planet, the pointed mountains seemed to stretch out to meet them.

"It can't be *all* mountains," Hellman said.

"It's not."

Sure enough, there were oceans and lakes, out of which thrust jagged island-mountains. But no

sign of level land, no hint of civilization, or even animal life.

"At least it's got an oxygen atmosphere," Casker said.

Their deceleration spiral swept them around the planet, cutting lower into the atmosphere, braking against it. And still there was nothing but mountains and lakes and oceans and more mountains.

On the eighth run, Hellman caught sight of a solitary building on a mountain top. Casker braked recklessly, and the hull glowed red hot. On the eleventh run, they made a landing approach.

"Stupid place to build," Casker muttered.

The building was doughnut-shaped, and fitted nicely over the top of the mountain. There was a wide, level lip around it, which Casker scorched as be landed the ship.

FROM the air, the building had merely seemed big. On the ground, it was enormous. Hellman and Casker walked up to it slowly. Hellman had his burner ready, but there was no sign of life.

"This planet must be abandoned," Hellman said almost in a whisper.

"Anyone in hia right mind would abandon this place," Casker said. "There're enough good planets around, without anyone trying to live on a needle point."

They reached the door. Hellman tried to open it and found it locked. He looked back at the spectacular display of mountains.

"You know," he said, "when this planet was still in a molten state, it must have been affected by several gigantie moons that are now broken up. Tbe strains, external and internal, wrenched it into its present spined appearance and—"

"Come off it," Casker said ungraciously. "You were a librarian before you decided to get rich on uranium."

Hellman shrugged his shoulders and burned a hole in the doorlock. They waited.

The only sound on the mountain top was the growling of their stomachs.

They entered.

The tremendous wedge-shaped room was evidently a warehouse of sorts. Goods were piled to the ceiling, scattered over the floor, stacked haphazardly against the walls. There were boxes and containers of all sizes and shapes, some big enough to hold an elephant, others the size of thimbles.

Near the door was a dusty pile of books. Immediately, Hellman bent down to examine them.

"Must be food somewhere in here," Casker said, his face lighting up for the first time in a

week. He started to open the nearest box.

"This is interesting," Hellman said, discarding all the books except one.

"Let's eat first," Casker said, ripping the top off the box. Inside was a brownish dust. Casker looked at it, sniffed, and made a face.

"Very interesting indeed," Hellman said, leafing through the book.

Casker opened a small can, which contained a glittering green slime. He closed it and opened another. It contained a dull orange slime.

"Hmm," Hellman said, still reading.

"Hellman! Will you kindly drop that book and help me find some food?"

"Food?" Hellman repeated, looking up. "What makes you think there's anything to eat here? For all you know, this could be a paint factory."

"It's a warehouse!" Casker shouted.

He opened a kidney-shaped can and lifted out a soft purple stick. It hardened quickly and crumpled to dust as he tried to smell it. He scooped up a handful of the dust and brought it to his mouth.

"That might be extract of strychnine," Hellman said casually.

CASKER abruptly dropped the dust and wiped his hands.

"After all," Hellman pointed out, "granted that this is a warehouse—a cache, if you wish—we don't know what the late inhabitants considered good fare. Paris green salad, perhaps, with sulphuric acid as dressing."

"All right," Casker said, "but we gotta eat. What're you going to do about all this?" He gestured at the hundreds of boxes, cans and bottles.

"The thing to do," Hellman said briskly, "is to make a qualitative analysis on four or five samples. We could start out with a simple titration, sublimate the chief ingredient, see if it forms a precipitate, work out its molecular makeup from—"

"Hellman, you don't know what you're talking about. You're a librarian, remember? And I'm a correspondence school pilot. We don't know anything about titrations and sublimations."

"I know," Hellman said, "but we should. It's the right way to go about it."

"Sure. In the meantime, though, just until a chemist drops in, what'll we do?"

"This might help us," Hellman said, holding up the book. "Do you know what it is?"

"No," Casker said, keeping a tight grip on his patience.

"It's a pocket dictionary and guide to the Helg language."

"Helg?"

"The planet we're on. The symbols match up with those on the boxes."

Casker raised an eyebrow. "Never heard of Helg."

"I don't believe the planet has ever had any contact with Earth," Hellman said. "This dictionary isn't Helg-English. It's Helg-Aloombrigian."

Casker remembered that Aloombrigia was the home planet of a small, adventurous reptilian race, out near the center of the Galaxy.

"How come you can read Aloombrigian?" Casker asked.

"Oh, being a librarian isn't a completely useless profession," Hellman said modestly. "In my spare time—"

"Yeah. Now how about—"

"Do you know," Hellman said, "the Aloombrigians probably helped the Helgans leave their planet and find another. They sell services like that. In which case, this building very likely *is* a food cache!"

"Suppose you start translating," Casker suggested wearily, "and maybe find us something to eat."

They opened boxes until they found a likely-looking substance. Laboriously, Hellman translated the symbols on it.

"Got it," he said. "It reads:—'USE SNIFFNERS — THE BETTER ABRASIVE.'"

"Doesn't sound edible," Casker said.

"I'm afraid not."

They found another, which read: VIGROOM! FILL ALL YOUR STOMACHS, AND FILL THEM RIGHT!

"What kind of animals do you suppose these Helgans were?" Casker asked.

Hellman shrugged his shoulders.

The next label took almost fifteen minutes to translate. It read: ARGOSEL MAKES YOUR THUDRA ALL TIZZY. CONTAINS THIRTY ARPS OF RAMSTAT PULZ, FOR SHELL LUBRICATION.

"There must be *something* here we can eat," Casker said with a note of desperation.

"I hope so," Hellman replied.

AT the end of two hours, they were no closer. They had translated dozens of titles and sniffed so many substances that their olfactory senses had given up in disgust.

"Let's talk this over," Hellman said, sitting on a box marked: VORMITISH—GOOD AS IT SOUNDS!

"Sure," Casker said, sprawling out on the floor. "Talk."

"If we could deduce what kind of creatures inhabited this planet, we'd know what kind of food they ate, and whether it's likely

to be edible for us."

"All we do know is that they wrote a lot of lousy advertising copy."

Hellman ignored that. "What kind of intelligent beings would evolve on a planet that is all mountains?"

"Stupid ones!" Casker said.

That was no help. But Hellman found that he couldn't draw any inferences from the mountains. It didn't tell him if the late Helgans ate silicates or proteins or iodine-base foods or anything.

"Now look," Hellman said, "we'll have to work this out by pure logic—Are you listening to me?"

"Sure," Casker said.

"Okay. There's an old proverb that covers our situation perfectly: 'One man's meat is another man's poison.'"

"Yeah," Casker said. He was positive his stomach had shrunk to approximately the size of a marble.

"We can assume, first, that their meat is our meat."

Casker wrenched himself away from a vision of five juicy roast beefs dancing tantalizingly before him. "What if their meat is our *poison?* What then?"

"Then," Hellman said, "we will assume that their poison is our meat."

"And what happens if their meat *and* their poison are our poison?"

"We starve."

"All right," Casker said, standing up. "Which assumption do we start with?"

"Well, there's no sense in asking for trouble. This *is* an oxygen planet, if that means anything. Let's assume that we can eat some basic food of theirs. If we can't we'll start on their poisons."

"If we live that long," Casker said.

Hellman began to translate labels. They discarded such brands as ANDROGYNITES' DELIGHT and VERBELL — FOR LONGER, CURLIER, MORE SENSITIVE ANTENNAE, until they found a small gray box, about six inches by three by three. It was called VALKORIN'S UNIVERSAL TASTE TREAT, FOR ALL DIGESTIVE CAPACITIES.

"This looks as good as any," Hellman said. He opened the box.

Casker leaned over and sniffed. "No odor."

WITHIN the box they found a rectangular, rubbery red block. It quivered slightly, like jelly.

"Bite into it," Casker said.

"Me?" Hellman asked. "Why not you?"

"You picked it."

"I prefer just looking at it," Hellman said with dignity. "I'm not too hungry."

"I'm not either," Casker said.

They sat on the floor and stared at the jellylike block. After ten minutes, Hellman yawned, leaned back and closed his eyes.

"All right, coward," Casker said bitterly. "I'll try it. Just remember, though, if I'm poisoned, you'll never get off this planet. You don't know how to pilot."

"Just take a little bite, then," Hellman advised.

Casker leaned over and stared at the block. Then he prodded it with his thumb.

The rubbery red block giggled.

"Did you hear that?" Casker yelped, leaping back.

"I didn't hear anything," Hellman said, his hands shaking. "Go ahead."

Casker prodded the block again. It giggled louder, this time with a disgusting little simper.

"Okay," Casker said, "what do we try next?"

"Next? What's wrong with this?"

"I don't eat anything that giggles," Casker stated firmly.

"Now listen to me," Hellman said. "The creatures who manufactured this might have been trying to create an esthetic sound as well as a pleasant shape and color. That giggle is probably only for the amusement of the eater."

"Then bite into it yourself," Casker offered.

Hellman glared at him, but made no move toward the rubbery block. Finally he said, "Let's move it out of the way."

They pushed the block over to a corner. It lay there giggling softly to itself.

"Now what?" Casker said.

Hellman looked around at the jumbled stacks of incomprehensible alien goods. He noticed a door on either side of the room.

"Let's have a look in the other sections," he suggested.

Casker shrugged his shoulders apathetically.

Slowly they trudged to the door in the left wall. It was locked and Hellman burned it open with the ship's burner.

It was a wedge-shaped room, piled with incomprehensible alien goods.

The hike back across the room seemed like miles, but they made it only slightly out of wind. Hellman blew out the lock and they looked in.

It was a wedge-shaped room, piled with incomprehensible alien goods.

"All the same," Casker said sadly, and closed the door.

"Evidently there's a series of these rooms going completely around the building," Hellman said. "I wonder if we should explore them."

Casker calculated the distance around the building, compared it

with his remaining strength, and sat down heavily on a long gray object.

"Why bother?" he asked.

HELLMAN tried to collect his thoughts. Certainly he should be able to find a key of some sort, a clue that would tell him what they could eat. But where was it?

He examined the object Casker was sitting on. It was about the size and shape of a large coffin, with a shallow depression on top. It was made of a hard, corrugated substance.

"What do you suppose this is?" Hellman asked.

"Does it matter?"

Hellman glanced at the symbols painted on the side of the object, then looked them up in his dictionary.

"Fascinating," he murmured, after a while.

"Is it something to eat?" Casker asked, with a faint glimmering of hope.

"No. You are sitting on something called THE MOROG CUSTOM SUPER TRANSPORT FOR THE DISCRIMINATING HELGAN WHO DESIRES THE BEST IN VERTICAL TRANSPORTATION. It's a vehicle!"

"Oh," Casker said dully.

"This is important! Look at it! How does it work?"

Casker wearily climbed off the Morog Custom Super Transport and looked it over carefully. He traced four almost invisible separations on its four corners. "Retractable wheels, probably, but I don't see—"

Hellman read on. "It says to give it three amphus of high-gain Integor fuel, then a van of Tonder lubrication, and not to run it over three thousand Ruls for the first fifty mungus."

"Let's find something to eat," Casker said.

"Don't you see how important this is?" Hellman asked. "This could solve our problem. If we could deduce the alien logic inherent in constructing this vehicle, we might know the Helgan thought pattern. This, in turn, would give us an insight into their nervous systems, which would imply their biochemical makeup."

Casker stood still, trying to decide whether he had enough strength left to strangle Hellman.

"For example," Hellman said, "what kind of vehicle would be used in a place like this? Not one with wheels, since everything is up and down. Anti-gravity? Perhaps, but what *kind* of anti-gravity? And why did the inhabitants devise a boxlike form instead—"

Casker decided sadly that he didn't have enough strength to strangle Hellman, no matter how pleasant it might be. Very quietly, he said, "Kindly stop making like a scientist. Let's see if there

isn't *something* we can gulp down."

"All right," Hellman said sulkily.

CASKER watched his partner wander off among the cans, bottles and cases. He wondered vaguely where Hellman got the energy, and decided that he was just too cerebral to know when he was starving.

"Here's something," Hellman called out, standing in front of a large yellow vat.

"What does it say?" Casker asked.

"Little bit hard to translate. But rendered freely, it reads: MORISHILLE'S VOOZY, WITH LACTO-ECTO ADDED FOR A NEW TASTE SENSATION. EVERYONE DRINKS VOOZY. GOOD BEFORE AND AFTER MEALS, NO UNPLEASANT AFTER-EFFECTS. GOOD FOR CHILDREN! THE DRINK OF THE UNIVERSE!"

"That sounds good," Casker admitted, thinking that Hellman might not be so stupid after all.

"This should tell us once and for all if their meat *is* our meat," Hellman said. "This Voozy seems to be the closest thing to a universal drink I've found yet."

"Maybe," Casker said hopefully, "maybe it's just plain water!"

"We'll see." Hellman pried open the lid with the edge of the burner.

Within the vat was a crystal-clear liquid.

"No odor," Casker said, bending over the vat.

The crystal liquid lifted to meet him.

Casker retreated so rapidly that he fell over a box. Hellman helped him to his feet, and they approached the vat again. As they came near, the liquid lifted itself three feet into the air and moved toward them.

"What've you done now?" Casker asked, moving back carefully. The liquid flowed slowly over the side of the vat. It began to flow toward him.

"Hellman!" Casker shrieked.

Hellman was standing to one side, perspiration pouring down his face, reading his dictionary with a preoccupied frown.

"Guess I bumbled the translation," he said.

"Do something!" Casker shouted. The liquid was trying to back him into a corner.

"Nothing I can do," Hellman said, reading on. "Ah, here's the error. It doesn't say 'Everyone drinks Voozy.' Wrong subject. 'Voozy drinks *everyone*.' That tells us something! The Helgans must have soaked liquid in through their pores. Naturally, they would prefer to be drunk, instead of to drink."

Casker tried to dodge around the liquid, but it cut him off

with a merry gurgle. Desperately he picked up a small bale and threw it at the Voozy. The Voozy caught the bale and drank it. Then it discarded that and turned back to Casker.

Hellman tossed another box. The Voozy drank this one and a third and fourth that Casker threw in. Then, apparently exhausted, it flowed back into its vat.

Casker clapped down the lid and sat on it, trembling violently.

"Not so good," Hellman said. "We've been taking it for granted that the Helgans had eating habits like us. But, of course, it doesn't necessarily—"

"No, it doesn't. No, sir, it certainly doesn't. I guess we can see that it doesn't. Anyone can see that it doesn't—"

"Stop that," Hellman ordered sternly. "We've no time for hysteria."

"Sorry." Casker slowly moved away from the Voozy vat.

"I guess we'll have to assume that their meat is our poison," Hellman said thoughtfully. "So now we'll see if their poison is our meat."

Casker didn't say anything. He was wondering what would have happened if the Voozy had drunk him.

In the corner, the rubbery block was still giggling to itself.

"NOW here's a likely-looking poison," Hellman said, half an hour later.

Casker had recovered completely, except for an occasional twitch of the lips.

"What does it say?" he asked.

Hellman rolled a tiny tube in the palm of his hand. "It's called Pvastkin's Plugger. The label reads: WARNING! HIGHLY DANGEROUS! PVASTKIN'S PLUGGER IS DESIGNED TO FILL HOLES OR CRACKS OF NOT MORE THAN TWO CUBIC VIMS. HOWEVER—THE PLUGGER IS NOT TO BE EATEN UNDER ANY CIRCUMSTANCES. THE ACTIVE INGREDIENT, RAMOTOL, WHICH MAKES PVASTKIN'S SO EXCELLENT A PLUGGER RENDERS IT HIGHLY DANGEROUS WHEN TAKEN INTERNALLY."

"Sounds great," Casker said. "It'll probably blow us sky-high."

"Do you have any other suggestions?" Hellman asked.

Casker thought for a moment. The food of Helg was obviously unpalatable for humans. So perhaps was their poison . . . but wasn't starvation better than this sort of thing?

After a moment's communion with his stomach, he decided that starvation was *not* better.

"Go ahead," he said.

Hellman slipped the burner under his arm and unscrewed the top of the little bottle. He shook it.

Nothing happened.

"It's got a seal," Casker pointed out.

Hellman punctured the seal with his fingernail and set the bottle on the floor. An evil-smelling green froth began to bubble out.

Hellman looked dubiously at the froth. It was congealing into a glob and spreading over the floor.

"Yeast, perhaps," he said, gripping the burner tightly.

"Come, come. Faint heart never filled an empty stomach."

"I'm not holding *you* back," Hellman said.

The glob swelled to the size of a man's head.

"How long is that supposed to go on?" Casker asked.

"Well," Hellman said, "it's advertised as a Plugger. I suppose that's what it does—expands to plug up holes."

"Sure. But how *much?*"

"Unfortunately, I don't know how much two cubic vims are. But it can't go on much—"

Belatedly, they noticed that the Plugger had filled almost a quarter of the room and was showing no signs of stopping.

"We should have believed the label!" Casker yelled to him, across the spreading glob. "It is dangerous!"

As the Plugger produced more surface, it began to accelerate in its growth. A sticky edge touched Hellman, and he jumped back.

"Watch out!"

He couldn't reach Casker, on the other side of the gigantic sphere of blob. Hellman tried to run around, but the Plugger had spread, cutting the room in half. It began to swell toward the walls.

"Run for it!" Hellman yelled, and rushed to the door behind him.

HE flung it open just as the expanding glob reached him. On the other side of the room, he heard a door slam shut. Hellman didn't wait any longer. He sprinted through and slammed the door behind him.

He stood for a moment, panting, the burner in his hand. He hadn't realized how weak he was. That sprint had cut his reserves of energy dangerously close to the collapsing point. At least Casker had made it, too, though.

But he was still in trouble.

The Plugger poured merrily through the blasted lock, into the room. Hellman tried a practice shot on it, but the Plugger was evidently impervious . . . as, he realized, a good plugger should be.

It was showing no signs of fatigue.

Hellman hurried to the far wall. The door was locked, as the others had been, so he burned

out the lock and went through.

How far could the glob expand? How much was two cubic vims? Two cubic miles, perhaps? For all he knew, the Plugger was used to repair faults in the crusts of planets.

In the next room, Hellman stopped to catch his breath. He remembered that the building was circular. He would burn his way through the remaining doors and join Casker. They would burn their way outside and . . .

Casker didn't have a burner!

Hellman turned white with shock. Casker had made it into the room on the right, because they had burned it open earlier. The Plugger was undoubtedly oozing into that room, through the shattered lock . . . and Casker couldn't get out! The Plugger was on his left, a locked door on his right!

Rallying his remaining strength, Hellman began to run. Boxes seemed to get in his way purposefully, tripping him, slowing him down. He blasted the next door and hurried on to the next. And the next. And the next.

The Plugger couldn't expand *completely* into Casker's room!

Or could it?

The wedge-shaped rooms, each a segment of a circle, seemed to stretch before him forever, a jumbled montage of locked doors, alien goods, more doors, more goods. Hellman fell over a crate, got to his feet and fell again. He had reached the limit of his strength, and passed it. But Casker was his friend.

Besides, without a pilot, he'd never get off the place.

Hellman struggled through two more rooms on trembling legs and then collapsed in front of a third.

"Is that you, Hellman?" he heard Casker ask, from the other side of the door.

"You all right?" Hellman managed to gasp.

"Haven't much room in here," Casker said, "but the Plugger's stopped growing. Hellman, get me out of here!"

HELLMAN lay on the floor panting. "Moment," he said.

"Moment, hell!" Casker shouted. "Get me out. I've found water!"

"What? How?"

"Get me out of here!"

Hellman tried to stand up, but his legs weren't cooperating. "What happened?" he asked.

"When I saw that glob filling the room, I figured I'd try to start up the Super Custom Transport. Thought maybe it could knock down the door and get me out. So I pumped it full of high-gain Integor fuel."

"Yes?" Hellman said, still trying to get his legs under control.

"That Super Custom Transport is an animal, Hellman! And the Integor fuel is water! Now get me out!"

Hellman lay back with a contented sigh. If he had had a little more time, he would have worked out the whole thing himself, by pure logic. But it was all very apparent now. The most efficient machine to go over those vertical, razor-sharp mountains would be an animal, probably with retractable suckers. It was kept in hibernation between trips; and if it drank water, the other products designed for it would be palatable, too. Of course they still didn't know much about the late inhabitants, but undoubtedly . . .

"Burn down that door!" Casker shrieked, his voice breaking.

Hellman was pondering the irony of it all. If one man's meat —*and* his poison—are your poison, then try eating something else. So simple, really.

But there was one thing that still bothered him.

"How did you know it was an Earth-type animal?" he asked.

"Its breath, stupid! It inhales and exhales and smells as if it's eaten onions!" There was a sound of cans falling and bottles shattering. "Now hurry!"

"What's wrong?" Hellman asked, finally getting to his feet and poising the burner.

"The Custom Super Transport. It's got me cornered behind a pile of cases. Hellman, it seems to think that I'm *its* meat!"

Broiled with the burner—well done for Hellman, medium rare for Casker—it was their meat, with enough left over for the trip back to Calao.

—ROBERT SHECKLEY

For Your Information

By WILLY LEY

THE DEADLY TREES

LET me begin by quoting something:

"During the last two days, my native porters had done everything — short of physical violence—to prevent me from going on. They had made speeches; they had thrown themselves flat on the ground, refusing to move; in short, the only reason they came along at all was that they

were even more afraid to go back alone.

"So we moved along under almost unbearable heat. The outline of the distant mountains, even though blurred by the heat, slowly grew more distinct. We were still pushing forward through the shoulder-high grass while the sun was sinking in the west when I suddenly broke out of the grass into a clearing.

"It was a very strange clearing—the grass simply stopped along a well-defined arc. On the bare ground were the bleached bones of animals and at a distance something that looked like a human skull. So it was true, after all.

"Because in the center of this inexplicable and somehow ghastly hundred-yard clearing there stood The Tree . . ."

I know you are quite sure that you have read this before, but right now you have trouble placing it. The reason is simple: you have read this in various stories and in Sunday Supplements quite a while back and maybe even in a book.

The tree in the center of the clearing is, of course, deadly. It is either so poisonous that birds flying over it drop to the ground, dead, or else it is actively carnivorous. And because editors of Sunday Supplements used to suspect that their readers might not know what "carnivorous" means, the tree was dubbed "man-eating."

Depending on the version, the natives—those of Mindanao in one—either shun it or else—those of Madagascar in another—they worship it and appease it with victims of which the white man must be kept unaware. The best way to combine both requirements is, naturally, to feed the white man to the tree, which preserves the secret and keeps the tree happy.

As far as I can tell, there haven't been any man-eating trees around for a number of years. The last one I know of was the blood-sucking tree of Mindanao of 1925 which did not live long in the public prints. The man-eating tree of Madagascar, on the other hand, is alleged to have flourished for almost half a century. But even this hardy (though tropical) perennial was not the first, for the myth of deadly trees is much older than that. In fact, it seems to have originated during the so-called age of exploration, when Africa was circumnavigated for the first time since the Phoenicians and when the Western Hemisphere was discovered.

I have a notion—for which I have no proof at the moment—that the deadly tree was origin-

ally a philosophical invention. Everything was contrasted by its opposite: light and darkness, heat and cold, life and death. The opposite of the royal lion was the deadly basilisk which could kill by a glance. Since the Bible spoke of a Tree of Life, it must have seemed at least likely that there was a Tree of Death, too. This belief seemed confirmed when travelers' tales followed hard upon the heels of the conquest of Central America. In the wonderland of the West Indies, there actually grew such a deadly tree. I don't know just how it was called at first, but later it was referred to very guardedly and with much awe as the Manzanilla tree. Scientists and especially botanists never mentioned it, yet it managed to survive as a literary tradition. The story reached its climax less than a century ago.

Giacomo Meyerbeer, born in Berlin in 1791 as Jakob Beer, returned to his native city in 1842 as musical boss of the Royal Opera, after living in Paris for two decades. But the *Herr Generalmusikdirektor* was not only supposed to conduct operas; he was also expected to compose some, and he did. One of his great successes was *L'Africaine;* in the last act, the heroine decides to die, which she does in a decorous manner by reposing in the shadow of a Manzanilla tree. When the opera was first performed in 1865, the assembled Berliners found this end most touching—and not a single one of them thought of inquiring whether there was such a tree. To some extent, the story died because nobody else dared use it any more, for fear of being accused of plagiarism.

But meanwhile another Tree of Death had made its appearance: the Upas tree. Later researchers have found what they believe to be the first appearance of this vegetable devil; an article in the *London Magazine* in 1783. Its author was a Dr. Foersch, who had lived for a number of years as a surgeon in Samarang. On his return, he told of the marvels of Java, among them the Upas tree, so poisonous that birds could not fly over it and animals could not pass near it. "All animal life within a range of 15 miles of such a tree will surely perish," Dr. Foersch stated.

IF that assertion had remained in the *London Magazine,* it would probably have been buried and forgotten. But Erasmus Darwin, the grandfather of Charles Darwin, was taken in and repeated the story in one of his works. This unfortunate fact did have one good aspect, at

least. Because Erasmus Darwin had mentioned it, people who went to Java looked for it. And they turned up with a tree which is now listed in botanical works as *Antiaris toxicaria;*-in Java, it is commonly referred to as the Anchar tree or, by the natives, as the Ipoh.

It is a straight, slender tree, 60 to 80 feet tall, and it *is* poisonous. However, it can be approached without danger, as is shown by the fact that the natives cut holes into it to get its sap, which they use for poisoning arrows and other weapons. The sap tastes like quinine and contains a poison that is rather powerful if it gets into the body through a cut or wound, since it acts on the heart muscle and the central nervous system. But don't worry if your seafaring uncle brought poisoned arrows from Java. After about eight weeks, the poison stops being lethal.

The strangest part of the whole story is that old Dr. Foersch may not have sold a deliberate hoax to his London editor, but may have been honestly mistaken. Java is very strongly volcanic and there are areas, local depressions, which are full of volcanic carbon dioxide. Because this colorless and odorless gas is much heavier than air, it can fill a depression like water, forcing all the breathable air out. Small animals that enter such a place suddenly collapse, as if struck by lightning (or as if poisoned). Actually, they have "drowned" in carbon dioxide. Nobody had any idea of carbon dioxide in 1783 when Dr. Foersch told his story.

But there *were* areas on Java where animals collapsed and died and there *was* a poisonous tree on the islands.

While the Manzanilla tree of operatic fame and the Upas tree of Java were merely supposed to be poisonous and as little concerned with the fate of the accidental victims as a poison ivy vine, the third in the succession of deadly trees had a purpose in mind. It was an active killer, intent on feeding the vegetable equivalent of a stomach. I am now speaking of the "Man-eating tree of Madagascar" which was discussed at great length in a book with the title "*Madagascar —Land of the Man-Eating Tree*" by one Chase Salmon Osborn, Ll.D., published in New York in 1924.

I do not claim to be able to judge the chapters on tribal customs, native history, etc., of this book. As for the chapter on zoology, I do know that it is horribly amateurish, incredibly careless as to detail and poorly written. The chapter on the botany of Madagascar is no better and in

general I feel that the proverbial "grain of salt" isn't enough.

OSBORN'S book claims that the man-eating tree of Madagascar was first described in 1878 in a letter by a traveler named Carl Liche to a Dr. Omelius Fredlowski (neither of whom is listed in *Webster's Biographical Dictionary*). The book also says that the report appeared first in a German magazine in 1878 and two years later in the *New York World*. I haven't had the time to check either and therefore cannot vouch for this.

The alleged letter says that its author visited a primitive tribe in the interior of Madagascar which is called the Mkodo tribe. These people are said to be ignorant of clothing and have no native religion or tribal rites except the worship of the tree. After completely failing to identify the place and merely stating that it was a valley which could not have been more than 400 feet above sea level, "Carl Liche" claims to have reached a lake from which issued a small river.

But now I feel I should quote verbatim:

"The sluggish canal-like stream here wound slowly by, and in a bare spot in its bend was the most singular of trees. I will try to describe it to you. If you can imagine a pineapple eight feet high and thick in proportion, resting upon its base and denuded of leaves, you will have a good idea of the trunk of the tree which, however, was not the color of a pineapple but a dark dingy brown and apparently as hard as iron. From the apex of this truncated cone (at least two feet in diameter) eight leaves hung sheer to the ground, like doors swung back on their hinges.

"These leaves were about 11 or 12 feet long and shaped very much like the leaves of the American agave or century plant (did he think this was the same?—W. L.). They were two feet through at their thickest point and three feet wide, tapering to a sharp point that looked like a cow's horn; very convex on the outer (but now under) surface and on the under (now upper) surface slightly concave. This concave face was thickly set with strong thorny hooks . . ."

IN addition to the trunk and the eight spiked leaves, the plant had a large number of green tendrils "tapering from 4 inches to 1/2 inch in diameter, yet stretched out stiffly as iron rods," a hollow on top filled with "a clear treacly liquid, honey sweet and possessed of violently intoxicating qualities" and, to round out the picture, "six white almost transparent palpi reared

themselves towards the sky, twirling and twisting with a marvellous incessant motion.

"Thin as reeds and frail as quills, apparently they were yet five or six feet tall and were so constantly and vigorously in motion that they made me shudder in spite of myself, with their suggestion of serpents flayed, yet dancing upon their tails."

The alleged letter then goes on to tell that one of the native women was forced to climb the tree and that, all at once, the green hard tendrils wrapped themselves around her like pythons. "And now the great leaves rose slowly and stiffly, approached one another and closed about the dead and hampered victim with the silent force of a hydraulic press and the ruthless purpose of a thumb screw." For ten days the big leaves remained upright. "Then, when I came one morning, they were prone again, the tendrils stretched, the palpi floating and nothing but a white skull at the foot of the tree to remind me of the sacrifice that had taken place there."

Well! All I can say is that *if* there were a carnivorous plant of a size to catch and kill a victim the size of a man, it certainly would not function as described.

As I said, I have not checked whether the letter actually appeared in the *Carlsruhe Scientific Journal* in 1878 or in the *New York World* in 1880. I doubt it. All the references to the man-eating tree of Madagascar appeared after 1924; i.e., after the publication of Dr. C. S. Osborn's book. The whole thing may have been a one-shot hoax, rather than a literary tradition. If it was such a hoax, it certainly was successful for a time.

HOMEMADE PSEUDO-CELLS

LAST month, when I discussed research work devoted to the origin and definition of life, I felt tempted to insert a few words about experiments that aimed at cell imitation. But I decided to postpone this for a month so that nobody might be confused, especially since there is one case on record where a researcher (a Russian physician with the very un-Russian name of Martin Kuckuck) mistook his pseudo-cells for actual artificial life, loudly proclaiming that he had solved the "secret of spontaneous generation."

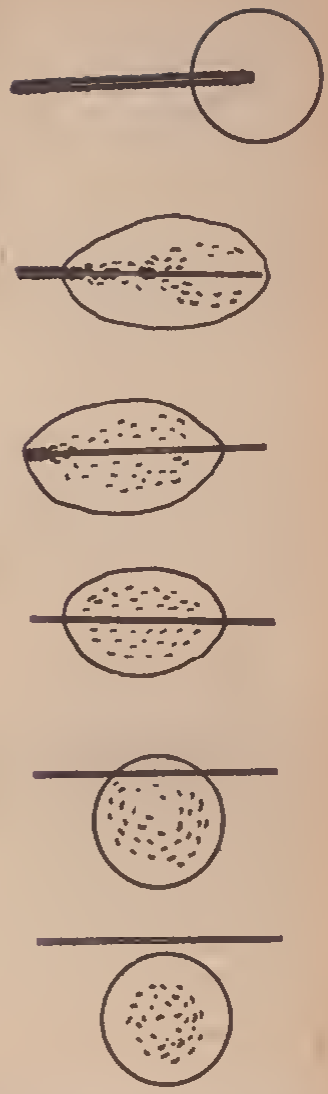
Perhaps the simplest of the imitation cells is the one found by Prof. Johannes Traube. Take a shallow glass dish and fill it with a solution of tannin. Then add one drop of old-fashioned carpenter's glue. Immediately a tough skin will form around the drop of glue. But the skin is not

impervious to water; the glue drop absorbs water from the solution, "grows" and finally bursts the skin. Of course a new skin forms immediately, which then again grows too tight for the water absorbed and so forth.

Even more astonishing in appearance is the "dividing cell" devised by the French physician Stephan Leduc. All it involves is a few drops of salt water on a piece of glass. One drop, placed in the center, consists of a weak salt solution to which a dye has been added. The two other drops, placed to the right and left of the first, contain no dye, but are somewhat stronger salt solutions. Then you make the three drops touch and observe the result with good magnifying glass. The result looks precisely like pictures of a real cell in division with "chromosomes" splitting off in both directions.

Or maybe you would like to see an ameba eating a small alga. Use a sliver of glass, about a quarter of an inch in length, coat it with shellac, put it in very shallow water and add a drop of chloroform. (See diagram). The chloroform drop will exhibit the most lifelike properties, finally throwing out the "indigestible" glass.

Finally, there are the "colpoids" of Prof. Alfonso L. Herrera of Mexico. The "nutrient"



A cell-like drop of chloroform "eating" and "digesting" shellac

of the "colpoids" is a mixture of olive oil and gasoline, two parts of gasoline (by volume) for one part of olive oil. The "cells" are a solution of washing soda in water that might be dyed to show things more clearly. The principle is the same as the cell of Prof. Traube—namely, osmotic pressure—but Herrera's are more active by far. They will move rapidly across the oil-gasoline "lake," pursue each other, eat each other and behave, in general, like irritated and hungry animalcules.

No, it doesn't prove anything directly. It merely shows that those physical forces that are utilized by an actually living cell can also put on a fine show by themselves.

MOTOR OR ENGINE?

ONE day, several years ago, after a lecture of mine on rockets and high altitude research, a gentleman came up to the platform and suggested with great politeness that I had made a mistake. An understandable and pardonable mistake since English is not my native tongue, but a mistake just the same. Of course I asked just what I had done wrong. "Well, sir," he said, "all through your lecture you spoke of rocket *motors* when you should have said *engines*." I asked why a rocket should have an engine. He didn't know, but insisted that it was not a motor. I then asked what was the difference between an engine and a motor. He couldn't explain, but maintained that there was one.

Since then, I have had several such conversations and one afternoon, when I had time, I went after that elusive difference between motor and engine, digging through encyclopedias, dictionaries, books on word origins and everything else that seemed pertinent.

The situation is about as silly as it can possibly be; it is best (if inadvertently) summed up by the first sentence in the article Motor-Boats of the *Encyclopaedia Britannica*, which says that a "motor-boat is a small vessel propelled by a gasoline engine." But if the motor-boat's gasoline engine is detachable, it promptly becomes an outboard motor. Similarly, with the aid of half a dozen or so engines in trucks, a company of soldiers is motorized. And every Englishman who can afford one drives a motorcar. Americans don't—they ride in automobiles, except younger ones who have motorbikes.

Linguistically, there can be no doubt that the right word is "motor," which is simply the Latin word for "mover." Trucks,

cars, motorboats, airplanes and rockets indubitably move, being moved by the thing many people insist on calling "engine."

As for the word "engine," it is supported by tradition only. Prior to the invention of the steam engine, the word "engine" was used in a sense which is expressed in present-day English by the words "contrivance" or "contraption." Remember that Domingo Gonzales, the hero of *The Man in the Moone* (1629), builds himself an "engine" to escape from St. Helena. It is—well, a contraption with a saddle at one end and harnesses for a dozen or so birds at the other. The word "engine" is derived from Latin, too, from *ingenium,* the word that also produced "ingenuity." The steam engine, when it came along, was just a special contrivance involving steam.

I know that this little dissertation is not going to change usage. Mechanics in garages will go on fixing engines, airplane pilots and operating personnel will continue to talk of the left outboard engine and so on. But I want at least to point out that there is no difference between "engine" and "motor" and that the latter is actually the better word. It merely has the drawback that it prevents the people who operate it from calling themselves "engineers" rather than "motorists,"

ANY QUESTIONS?

What is the "circular velocity" of a body and how is it related to the escape velocity?

Alexander E. Tiflis
East Morningside Drive
Atlanta, Georgia.

The "circular velocity" of a planet is the velocity a body has to attain to describe a circular orbit around the planet. In the case of Earth, this amounts to 4.943 miles per second at sea level. Theoretically a projectile or rocket, having this speed, would circle Earth indefinitely, but in reality it would crash very rapidly because of air resistance. For practical reasons, therefore, the circular velocity is always specified for a given distance or height, by saying that the circular velocity for a height of x miles is y miles per sec. You can calculate the circular velocity very easily according to the formula $\sqrt{g(r+h)}$ where r is the radius of the planet, while h is the additional distance above sea level.

If you fired a projectile (neglecting air resistance) vertically with circular velocity, it would rise to a distance of one planet radius above the surface. The following table leads

up to the second part of your question. Circular velocity is denoted by v_c.

height reached:	velocity:			
	v_c	multiplied	by	1.000
2 r	"	"	"	1.155
3 r	"	"	"	1.225
4 r	"	"	"	1.265
5 r	"	"	"	1.291
6 r	"	"	"	1.309
7 r	"	"	"	1.320
infinity	"	"	"	1.414

The last line in this table denotes "escape velocity" and since 1.414 is the square root of 2, the relationship between circular velocity v_c and escape velocity v_p is

$$v_p = v_c \sqrt{2}$$

and the numerical value of v_p is 6.9655 miles per sec.

In a 20-year old book which came into my possession, I found mention of a number called duodecillion. I would like to know whether such a number is still in use and how large it is.

Carl R. White
568 Mt. View Terrace
Dunellen, N. J.

Names like sextillion, decillion, duodecillion, etc., are very rarely used nowadays, mostly because of the misunderstandings that might be caused by their use. Unfortunately, Europeans and Americans could never reach an agreement on how to name figures larger than one million. Up to that point they agree, but the Americans call 1000 million a billion, while Europeans call the same figure a milliard and reserve the word billion for a million million. (You may have noticed that I *never* say "billion" but always 1000 million, partly because this is correct mathematically and partly because of our foreign editions.) Similarly, the Americans use the "next higher name" after adding three zeros to a figure; the Europeans, after adding six zeros. Having progressed in either manner ten times, starting at a million, you get a decillion; after twelve times, a duodecillion. To avoid misunderstandings, large figures are now written in this manner:

$$2 \times 10^6$$

which means two million. You can remember this system most easily by saying that the exponential figure is the number of zeros following a one.

In the book The Universe and Dr. Einstein, *Lincoln Barnett, its author, says: "Contrary to popu-*

lar belief the moon does not revolve around the earth; they revolve around each other, or more precisely around a common center of gravity." Can you tell me if this is true?

Peter J. McLean
4241 Victoria Dr.
Vancouver B. C.

The answer is yes, Earth and Moon revolve around a common center of gravity. If they were both of equal mass, that common center of gravity, technically known as the barycenter, would be halfway between them. In the case of two bodies of unequal mass, the barycenter is close to the larger of the two bodies. In the case of the Earth-Moon system, the masses are so unequal that the barycenter is comparatively close to the center of the bigger mass; i.e., the Earth. It is 2900 miles from the Earth's center and since the radius of the Earth is 3950 miles, the barycenter is roughly 1000 miles below the surface.

What would happen if two galaxies collided?

Peter Kreeft
26 Richardson Ave.
Haledon, N. J.

Let's see: In our section of the Galaxy, the average distance between stars seems to be of the order of 25 million million miles. The diameter of a star is rarely more than two million miles, so the distance is 12.5 million star diameters. Even in the denser sections of a galaxy, the average distance is still several thousand star diameters. It is, therefore, possible that two galaxies might "collide" by going through each other without a single star collision. In reality, there might be some very close approaches, but the overall picture would be that nothing happens at all.

—WILLY LEY

Mr.

By
THEODORE
STURGEON

ILLUSTRATED BY EMSH

Costello, Hero

He wanted to help people on all worlds and all ships between . . . and his plan was a warm and friendly one. Maybe a bit too friendly!

"COME in, Purser. And shut the door."

"I beg your pardon, sir?" The Skipper never invited anyone in—not to his quarters. His office, yes, but not here.

He made an abrupt gesture, and I came in and closed the door. It was about as luxurious as a compartment on a spaceship can get. I tried not to goggle at it as if it was the first time I had ever seen it, just because it was the first time I had ever seen it.

I sat down.

He opened his mouth, closed it, forced the tip of his tongue through his thin lips. He licked them and glared at me. I'd never seen the Iron Man like this. I decided that the best thing to say would be nothing, which is what I said.

He pulled a deck of cards out of the top-middle drawer and slid them across the desk. "Deal."

I said, "I b—"

"And don't say you beg my pardon!" he exploded.

Well, all right. If the skipper wanted a cozy game of gin rummy to while away the parsecs, far be it from me to. . . I shuffled. Six years under this cold-blooded, fish-eyed automatic computer with eyebrows, and this was the first time that he—

"Deal," he said. I looked up at him. "Draw, five-card draw. You do play draw poker, don't you, Purser?"

"Yes, sir." I dealt and put down the pack. I had three threes and a couple of court cards. The skipper scowled at his hand and threw down two. He glared at me again.

I said, "I got three of a kind, sir."

HE let his cards go as if they no longer existed, slammed out of his chair and turned his back to me. He tilted his head back and stared up at the see-it-all, with its complex of speed, time, position and distance-run coordinates. Borinquen, our destination planet, was at spitting distance—only a day or so off—and Earth was a long, long way behind. I heard a sound and dropped my eyes. The Skipper's hands were locked behind him, squeezed together so hard that they crackled.

"Why didn't you draw?" he grated.

"I beg your—"

"When *I* played poker—and I used to play a hell of a lot of poker—as I recall it, the dealer would find out how many cards each player wanted after the deal and give him as many as he discarded. Did you ever hear of that, Purser?"

"Yes, sir, I did."

"You *did*." He turned around. I imagine he had been scowling this same way at the see-it-all, and I wondered why it was he hadn't shattered the cover glass.

"Why, then, Purser," he demanded, "did you show your three of a kind without discarding, without drawing—without, mister, asking me how many cards I might want?"

I thought about it. "I—we—I mean, sir, we haven't been playing poker that way lately."

"You've been playing poker without drawing!" He sat down again and beamed that glare at me again. "And who changed the rules?"

"I don't know, sir. We just—that's the way we've been playing."

He nodded thoughtfully. "Now tell me something, Purser. How much time did you spend in the galley during the last watch?"

"About an hour, sir."

"About an hour."

"Well, sir," I explained hurriedly, "it was my turn."

He said nothing, and it suddenly occurred to me that these galley-watches weren't in the ship's orders.

I said quickly, "It isn't *against* your orders to stand such a watch, is it, sir?"

"No," he said, "it isn't." His voice was so gentle, it was ugly. "Tell me, Purser, doesn't Cooky mind these galley-watches?"

"Oh, no, sir! He's real pleased about it." I knew he was thinking about the size of the galley. It was true that two men made quite a crowd in a place like that. I said, "That way, he knows everybody can trust him."

"You mean that way you know he won't poison you."

"Well—yes, sir."

"And tell me," he said, his

voice even gentler, "who suggested he might poison you?"

"I really couldn't say, Captain. It's just sort of something that came up. Cooky doesn't mind," I added. "If he's watched all the time, he knows nobody's going to suspect him. It's all right."

AGAIN he repeated my words. "It's all right." I wished he wouldn't, I wished he'd stop looking at me like that. "How long," he asked, "has it been customary for the deck officer to bring a witness with him when he takes over the watch?"

"I really couldn't say, sir. That's out of my department."

"You couldn't say. Now think hard, Purser. Did you ever stand galley-watches, or see deck-officers bring witnesses with them when they relieve the bridge, or see draw poker played without drawing—before this trip?"

"Well, no, sir. I don't think I have. I suppose we just never thought of it before."

"We never had Mr. Costello as a passenger before, did we?"

"No, sir."

I thought for a moment he was going to say something else, but he didn't, just: "Very well, Purser. That will be all."

I went out and started back aft, feeling puzzled and sort of upset. The Skipper didn't have to hint things like that about Mr. Costello. Mr. Costello was a very nice man. Once, the Skipper had picked a fight with Mr. Costello. They'd shouted at each other in the dayroom. That is, the Skipper had shouted—Mr. Costello never did. Mr. Costello was as good-natured as they come. A big good-natured soft-spoken man, with the kind of face they call open. Open and honest. He'd once been a Triumver back on Earth—the youngest ever appointed, they said.

You wouldn't think such an easygoing man was as smart as that. Triumvers are usually lifetime appointees, but Mr. Costello wasn't satisfied. Had to keep moving, you know. Learning all the time, shaking hands all around, staying close to the people. He loved people.

I don't know why the Skipper couldn't get along with him. Everybody else did. And besides —Mr. Costello didn't play poker; why should he care one way or the other how *we* played it? He didn't eat the galley food—he had his own stock in his cabin—so what difference would it make to him if the cook poisoned anyone? Except, of course, that he cared about *us*. People—he *liked* people.

Anyway, it's better to play poker without the draw. Poker's a good game with a bad reputation. And where do you suppose

it gets the bad reputation? From cbeaters. And how do people cheat at poker? Almost never when they deal. It's when they pass out cards after the discard. That's when a shady dealer knows what be holds, and he knows what to give the others so he can win. All right, remove the discard and you remove nine-tenths of the cheaters. Remove tbe cheaters and the honeat men can trust each other.

That's what Mr. Costello used to say, anyhow. Not that he cared one way or the other for himself. He wasn't a gambling man.

I WENT into the dayroom and there was Mr. Costello with the Third Officer. He gave me a big smile and a wave, so I went over.

"Come on, sit down, Purser," he said. "I'm landing tomorrow. Won't have much more chance to talk to you."

I sat down. The Third snapped shut a book he'd been holding open on the table and sort of got it out of sight.

Mr. Costello laughed at him. "Go ahead, Third, show the Purser. You can trust him—he's a good man. I'd be proud to be shipmates with the Purser."

The Third hesitated and then raised the book from his lap. It was the *Space Code* and expanded *Rules of the Road*. Every licensed officer has to bone up on it a lot, to get his license. But it's not the kind of book you ordinarily kill time with.

"The Third here was showing me all about what a captain can and can't do," said Mr. Costello.

"Well, you asked me to," the Third said.

"Now just a minute," said Mr. Costello rapidly, "now just a minute." He had a way of doing that sometimes. It was part of him, like the thinning hair on top of his head and the big smile and the way he had of cocking his head to one side and asking you what it was you just said, as if he didn't hear so well. "Now just a minute, you *wanted* to show me this material, didn't you?"

"Well, yes, Mr. Costello," the Third said.

"You're going over the limitations of a spacemaster's power of your own free will, aren't you?"

"Well," said the Third, "I guess so. Sure."

"Sure," Mr. Costello repeated happily. "Tell the Purser the part you just read to me."

"The one you found in the book?"

"You know the one. You read it out your own self, didn't you?"

"Oh," said the Third. He looked at me—sort of uneasily, I thought—and reached for the book.

Mr. Costello put his hand on it. "Oh, don't bother looking it up," he said. "You can remember it."

"Yeah, I guess I do," the Third admitted. "It's a sort of safeguard against letting a skipper's power go to his head, in case it ever does. Suppose a time comes when a captain hegins to act up, and the crew gets the idea that a lunatic has taken over the bridge. Well, something has to be done about it. The crew has the power to appoint one officer and send him up to the Captain for an accounting. If the Skipper refuses, or if the crew doesn't like his accounting, then they have the right to confine him to his quarters and take over the ship."

"I think I heard about that," I said. "But the Skipper has rights, too. I mean the crew has to report everything hy space-radio the second it happens, and then the Captain has a full hearing along with the crew at the next port."

MR. Costello looked at us and shook his hig head, full of admiration. When Mr. Costello thought you were good, it made you feel good all over.

The Third looked at his watch and got up. "I got to relieve the hridge. Want to come along, Purser?"

"I'd like to talk to him for a while," Mr. Costello said. "Do you suppose you could get somebody else for a witness?"

"Oh, sure, if you say so," said the Third.

"But you're going to get someone."

"Absolutely," said the Third.

"Safest ship I was ever on," said Mr. Costello. "Gives a fellow a nice feeling to know that the watch is never going to get the orders wrong."

I thought so myself and wondered why we never used to do it before. I watched the Third leave and stayed where I was, feeling good, feeliog safe, feeling glad that Mr. Costello wanted to talk to me. And me just a Purser, him an ex-Triumver.

Mr. Costello gave me the big smile. He oodded toward the door. "That young fellow's going far. A good man. You're all good men here." He stuck a sucker-cup in the heater and passed it over to me with his own hands. "Coffee," he said. "My own brand. All I ever use."

I tasted it and it was fine. He was a very generous man. He sat hack and beamed at me while I drank it.

"What do you know about Borinquen?" he wanted to know.

I told him all I could. Borinquen's a pretty niee place, what they call "four-nines Earth Normal"—which means that the cli-

mate, gravity, atmosphere and ecology come within .9999 of being the same as Earth's. There are only about six known planets like that. I told him about the one city it had and the trapping that used to be the main industry. Coats made out of *glunker* fur last forever. They shine green in white light and a real warm ember-red in blue light, and you can take a full-sized coat and scrunch it up and hide it in your two hands, it's that light and fine. Being so light, the fur made ideal space-cargo.

Of course, there was a lot more on Borinquen now—rare isotope ingots and foodstuffs and seeds for the drug business and all, and I suppose the *glunker* trade could dry right up and Borinquen could still carry its weight. But furs settled the planet, furs supported the city in the early days, and half the population still lived out in the bush and trapped.

Mr. Costello listened to everything I said in a way I can only call respectful.

I remember I finished up by saying, "I'm sorry you have to get off there, Mr. Costello. I'd like to see you some more. I'd like to come see you at Borinquen, whenever we put in, though I don't suppose a man like you would have much spare time."

He put his big hand on my arm. "Purser, if I don't have time when you're in port, I'll make time. Hear?" Oh, he had a wonderful way of making a fellow feel good.

NEXT thing you know, he invited me right into his cabin. He sat me down and handed me a sucker full of a mild red wine with a late flavor of cinnamon, which was a new one on me, and he showed me some of his things.

He was a great collector. He had one or two little bits of colored paper that he said were stamps they used before the Space Age, to prepay carrying charges on paper letters. He said no matter where he was, just one of those things could get him a fortune. Then he had some jewels, not rings or anything, just stones, and a fine story for every single one of them.

"What you're holding in your hand," he said, "cost the life of a king and the loss of an empire half again as big as United Earth." And: "This one was once so well guarded that most people didn't know whether it existed or not. There was a whole religion based on it—and now it's gone, and so is the religion."

It gave you a queer feeling, being next to this man who had so much, and him just as warm and friendly as your favorite uncle.

"If you can assure me these

bulkheads are soundproof, I'll show you something else I collect," he said.

I assured him they were, and they were, too. "If ships' architects ever learned anything," I told him, "they learned that a man has just got to be by himself once in a while."

He cocked his head to one side in that way he had. "How's that again?"

"A man's just got to be by himself once in a while," I said. "So, mass or no, cost or no, a ship's bulkheads are built to give a man his privacy."

"Good," he said. "Now let me show you." He unlocked a handcase and opened it, and from a little compartment inside he took out a thing about the size of the box a watch comes in. He handled it very gently as he put it down on his desk. It was square, and it had a fine grille on the top and two little silver studs on the side. He pressed one of them and turned to me, smiling. And let me tell you, I almost fell right off the bunk where I was sitting, because here was the Captain's voice as loud and as clear and natural as if he was right there in the room with us. And do you know what he said?

He said, "My crew questions my sanity—yet you can be sure that if a single man aboard questions my authority, he will learn that I am master here, even if he must learn it at the point of a gun."

WHAT surprised me so much wasn't only the voice but the words—and what surprised me especially about the words was that I had heard the Skipper say them myself. It was the time he had had the argument with Mr. Costello. I remembered it well because I had walked into the dayroom just as the Captain started to yell.

"Mr. Costello," he said in that big heavy voice of his, "in spite of your conviction that my crew questions my sanity . . " and all the rest of it, just like on this recording Mr. Costello had. And I remember he said, too, "even if he must learn it at the point of a gun. *That, sir, applies to passengers — the crew has legal means of their own.*"

I was going to mention this to Mr. Costello, but before I could open my mouth, he asked me, "Now tell me, Purser, is that the voice of the Captain of your ship?"

And I said, "Well, if it isn't, I'm not the Purser here. Why, I heard him speak those words my very own self."

Mr. Costello swatted me on the shoulder. "You have a good ear, Purser. And how do you like my little toy?"

Then he showed it to me, a little mechanism on the jeweled pin he wore on his tunic, a fine thread of wire to a pushbutton in his side pocket.

"One of my favorite collections," he told me. "Voices. Anybody, anytime, anywhere." He took off the pin and slipped a tiny bead out of the setting. He slipped this into a groove in the box and pressed the stud.

And I heard my own voice say, "I'm sorry you have to get off there, Mr. Costello. I'd like to see you some more." I laughed and laughed. That was one of the cleverest things I ever saw. And just think of my voice in his collection, along with the Captain and space only knows bow many great and famous people!

He even had the voice of the Third Officer, from just a few minutes before, saying, "A lunatic has taken over the bridge. Well, something has to be done about it."

All in all, I had a wonderful visit with him, and then he asked me to do whatever I had to do about his clearance papers. So I went back to my office and got them out. They are kept in the Purser's safe during a voyage. And I went through them with the okays. There were a lot of them—he had more than most people.

I found one from Earth Central that sort of made me mad. I guess it was a mistake. It was a *Know All Ye* that warned consular officials to report every six months, Earth time, on the activities of Mr. Costello.

I took it to him, and it was a mistake, all right—he said so himself. I tore it out of his passport book and adhesed an official note, reporting the accidental destruction of a used page of fully stamped visas. He gave me a beautiful blue gemstone for doing it.

When I said, "I better not; I don't want you thinking I take bribes from passengers," he laughed and put one of those beads in his recorder, and it came out, in my voice, "I take bribes from passengers." He was a great joker.

WE lay at Borinquen for four days. Nothing mucb happened except I was busy. That's what's tough about pursering. You got nothing to do for weeks in space, and then, when you're in spaceport, you have too much work to do even to go ashore much, unless it's a long layover.

I never really minded much. I'm one of those mathematical geniuses, you know, even if I don't have too much sense otherwise, and I take pride in my work. Everybody has something he's good at, I guess. I couldn't tell

you how the gimmick works that makes the ship travel faster than light, but I'd hate to trust the Chief Engineer with one of my interplanetary cargo manifests, or a rate-of-exchange table, *glunk*er pelts to U.E. dollars.

Some hard-jawed character with Space Navy Investigator credentials came inboard with a portable voice recorder and made me and the Third Officer recite a lot of nonsense for some sort of test, I don't know what. The SNI is always doing a lot of useless and mysterious things. I had an argument with the Port Agent, and I went ashore with Cooky for a fast drink. The usual thing. Then I had to work overtime signing on a new Third—they transferred the old one to a corvette that was due in, they told me.

Oh, yes, that was the trip the Skipper resigned. I guess it was high time. He'd been acting very nervous. He gave me the damnedest look when he went ashore that last time, like he didn't know whether to kill me or burst into tears. There was a rumor around that he'd gone beserk and threatened the crew with a gun, but I don't listen to rumors. And anyway, the Port Captain signs on new skippers. It didn't mean any extra work for me, so it didn't matter much.

We upshipped again and made the rounds, Boötes Sigma and Nightingale and Caranho and Earth — chemical glassware, blackprints, *sho* seed and glitter crystals; perfume, music tape, *glizzard* skins and Aldebar—all the usual junk for all the usual months. And round we came again to Borinquen.

Well, you wouldn't believe a place could change so much in so short a time. Borinquen used to be a pretty free-and-easy planet. There was just the one good-sized city, see, and then trapper camps all through the unsettled area. If you liked people, you settled in the city, and you could go to work in the processing plants or maintenance or some such. If you didn't, you could trap *glunk*ers. There was always something for everybody on Borinquen.

But things were way different this trip. First of all, a man with a Planetary Government badge came aboard, by God, to censor the music tapes consigned for the city, and he had the credentials for it, too. Next thing I find out, the municipal authorities have confiscated the warehouses — *my* warehouses — and they were being converted into barracks.

And where were the goods—the pelts and ingots for export? Where was the space for our cargo? Why, in houses—in hun-

dreds of houses, all spread around every which way, all indexed up with a whole big new office full of conscripts and volunteers to mix up and keep mixed up! For the first time since I went to space, I had to request layover so I could get things unwound.

ANYWAY it gave me a chance to wander around the town, which I don't often get.

You should have seen the place! Everybody seemed to be moving out of the houses. All the big buildings were being made over into hollow shells, filled with rows and rows of mattresses. There were banners strung across the streets: ARE YOU A MAN OR ARE YOU ALONE? A SINGLE SHINGLE IS A SORRY SHELTER! THE DEVIL HATES A CROWD!

All of which meant nothing to me. But it wasn't until I noticed a sign painted in whitewash on the glass front of a barroom, saying—TRAPPERS STAY OUT!—that I was aware of one of the biggest changes of all.

There were no trappers on the streets—none at all. They used to be one of the tourist attractions of Borinquen, dressed in *glunker* fur, with the long tail-wings afloat in the wind of their walking, and a kind of distance in their eyes that not even spacemen had. As soon as I missed them, I began to see the TRAPPERS STAY OUT! signs just about everywhere—on the stores, the restaurants, the hotels and theaters.

I stood on a street corner, looking around me and wondering what in hell was going on here, when a Borinquen cop yelled something at me from a monowheel prowl car. I didn't understand him, so I just shrugged. He made a U-turn and coasted up to me.

"What's the matter, country boy? Lose your traps?"

I said, "What?"

He said, "If you want to go it alone, *glunker,* we got solitary cells over at the Hall that'll suit you fine."

I just gawked at him. And, to my surprise, another cop poked his head up out of the prowler. A one-man prowler, mind. They were really jammed in there.

This second one said, "Where's your trapline, jerker?"

I said, "I don't have a trapline." I pointed to the mighty tower of my ship, looming over the spaceport. "I'm the Purser off that ship."

"Oh, for God's sakes!" said the first cop. "I might have known. Look, Spacer, you'd better double up or you're liable to get yourself mobbed. This is no spot for a soloist."

"I don't get you, Officer. I was just—"

"I'll take him," said someone

I looked around and saw a tall Borinqueña standing just inside the open doorway of one of the hundreds of empty houses. She said, "I came back here to pick up some of my things. When I got done in here, there was nobody on the sidewalks. I've been here an hour, waiting for somebody to go with." She sounded a little hysterical.

"You know better than to go in there by yourself," said one of the cops.

"I know—I know. It was just to get my things. I wasn't going to stay." She hauled up a duffelbag and dangled it in front of her. "Just to get my things," she said again, frightened.

The cops looked at each other. "Well, all right. But watch yourself. You go along with the Purser here. Better straighten him out—he don't seem to know what's right."

"I will," she said thankfully.

But by then the prowler had moaned off, weaving a little under its double load.

I LOOKED at her. She wasn't pretty. She was sort of heavy and stupid.

She said, "You'll be all right now. Let's go."

"Where?"

"Well, Central Barracks, I guess. That's where most everybody is."

"I have to get back to the ship."

"Oh, dear," she said, all distressed again. "Right away?"

"No, not right away. I'll go in town with you, if you want." She picked up her duffelbag, but I took it from her and heaved it up on my shoulder. "Is everybody here crazy?" I asked her, scowling.

"Crazy?" She began walking, and I went along. "I don't *think* so."

"All this," I persisted. I pointed to a banner that said, NO LADDER HAS A SINGLE RUNG. "What's that mean?"

"Just what it says."

"You have to put up a big thing like that just to tell me . . ."

"Oh," she said. "You mean what does it *mean!*" She looked at me strangely. "We've found out a new truth about humanity. Look, I'll try to tell it to you the way Lucilles said it last night."

"Who's Lucille?"

"*The* Lucilles," she said, in a mildly shocked tone. "Actually, I suppose there's really only one —though, of course, there'll be someone else in the studio at the time," she added quickly. "But on trideo it looks like four Lucilles, all speaking at once, sort of in chorus."

"You just go on talking," I said when she paused. "I catch on slowly."

"Well, here's what they say. They say no *one* human being ever did *anything*. They say it takes a hundred pairs of hands to build a house, ten thousand pairs to build a ship. They say a single pair is not only useless—it's *evil*. All humanity is a thing made up of many parts. No part is good by itself. Any part that wants to go off by itself hurts the whole main thing—the thing that has become so great. So we're seeing to it that no part ever gets separated. What good would your hand be if a finger suddenly decided to go off by itself?"

I said, "And you believe this—what's your name?"

"Nola. *Believe* it? Well, it's true, isn't it? Can't you see it's true? Everybody *knows* it's true."

"Well, it *could* be true," I said reluctantly. "What do you do with people who want to be by themselves?"

"We help them."

"Suppose they don't want help?"

"Then they're trappers," she said immediately. "We push them back into the bush, where the evil soloists come from."

"Well, what about the fur?"

"*N*obody uses furs any more!"

So that's what happened to our fur consignments! And I was thinking those amateur red-tapers had just lost 'em somewhere.

She said, as if to herself, "All sin starts in the lonesome dark," and when I looked up, I saw she'd read it approvingly off another banner.

WE rounded a corner and I blinked at a blaze of light. It was one of the warehouses.

"There's the Central," she said. "Would you like to see it?"

"I guess so."

I followed her down the street to the entrance. There was a man sitting at a table in the doorway. Nola gave him a card. He checked it against a list and handed it back.

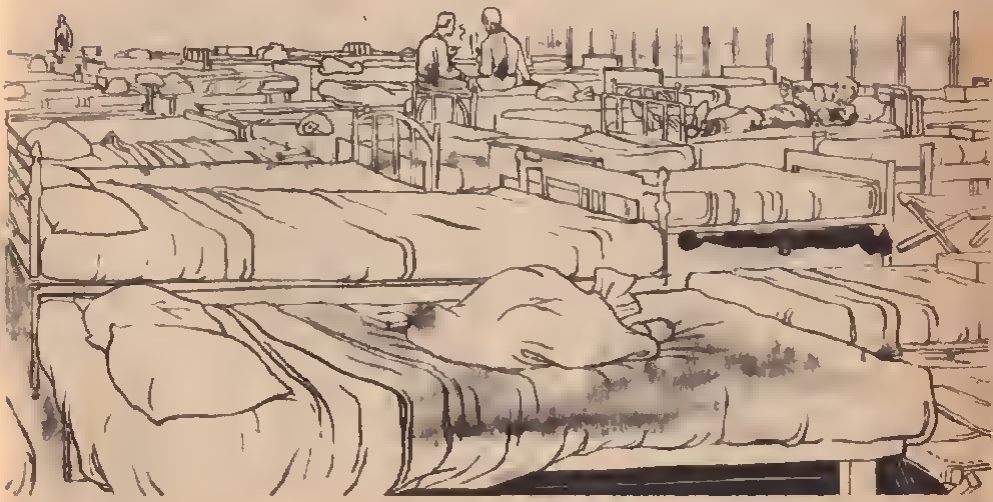
"A visitor," she said. "From the ship."

I showed him my Purser's card and he said, "Okay. But if you want to stay, you'll have to register."

"I won't want to stay," I told him. "I have to get back."

I followed Nola inside.

The place had been scraped out to the absolute maximum. Take away one splinter of vertical structure more and it wouldn't have held a roof. There wasn't a concealed corner, a shelf, a drape, an overhang. There must have been two thousand beds, cots and mattresses spread out, cheek by jowl, over the entire floor, in blocks of four, with only a hand's-breadth between them. The light was blinding—huge



floods and spots bathed every square inch in yellow-white fire.

Nola said, "You'll get used to the light. After a few nights, you don't even notice it."

"The lights never get turned off?"

"Oh, dear, no!"

Then I saw the plumbing—showers, tubs, sinks and everything else. It was all lined up against one wall.

Nola followed my eyes. "You get used to that, too. Better to have everything out in the open than to let the devil in for one secret second. That's what the Lucilles say."

I dropped her duffelbag and sat down on it. The only thing I could think of was, "Whose idea was all this? Where did it start?"

"The Lucilles," she said vaguely. Then, "Before them, I don't know. People just started to realize. Somebody bought a warehouse—no, it was a hangar—I don't know," she said again, apparently trying bard to remember. She sat down next to me and said in a subdued voice, "Actually, some people didn't take to it so well at first." She looked around. "*I* didn't. I mean it, I really didn't. But you believed, or you had to act as if you believed, and one way or another everybody just came to this." She waved a hand.

"What happened to the ones who wouldn't come to Centrals?"

"People made fun of them. They lost their jobs, the schools wouldn't take their children, the stores wouldn't honor their ration cards. Then the police started to pick up soloists—like they did you." She looked around again, a sort of contented familiarity in her gaze. "It didn't take long."

I turned away from her, but found myself staring at all that plumbing again. I jumped up. "I have to go, Nola. Thanks for your help. Hey—how do I get back to the ship, if the cops are out to pick up any soloist they see?"

"Oh, just tell the man at the gate. There'll be people waiting to go your way. There's always somebody waiting to go everywhere."

SHE came along with me. I spoke to the man at the gate, and she shook hands with me. I stood by the little table and watched her hesitate, then step up to a woman who was entering. They went in together. The doorman nudged me over toward a group of what appeared to be loungers.

"*North!*" he bawled.

I drew a pudgy little man with bad teeth, who said not one single word. We escorted each other two-thirds of the way to the spaceport, and he disappeared

into a factory. I scuttled the rest of the way alone, feeling like a criminal, which I suppose I was. I swore I would never go into that crazy city again.

And the next morning, who should come out for me, in an armored car with six two-man prowlers as escort, but Mr. Costello himself!

It was pretty grand seeing him again. He was just like always, big and handsome and good-natured. He was not alone. All spread out in the back corner of the car was the most beautiful blonde woman that ever struck me speechless. She didn't say very much. She would just look at me every once in a while and sort of smile, and then she would look out of the car window and bite on her lower lip a little, and then look at Mr. Costello and not smile at all.

Mr. Costello hadn't forgotten me. He had a bottle of that same red cinnamon wine, and he talked over old times the same as ever, like he was a special uncle. We got a sort of guided tour. I told him about last night, about the visit to the Central, and he was pleased as could be. He said he knew I'd like it. I didn't stop to think whether I liked it or not.

"Think of it!" he said. "All humankind, a single unit. You know the principle of cooperation, Purser?"

When I took too long to think it out, he said, "You know. Two men working together can produce more than two men working separately. Well, what happens when a thousand—a million—work, sleep, eat, think, breathe together?" The way he said it, it sounded fine.

He looked out past my shoulder and his eyes widened just a little. He pressed a button and the chauffeur brought us to a sliding stop.

"Get that one," Mr. Costello said into a microphone beside him.

Two of the prowlers hurtled down the street and flanked a man. He dodged right, dodged left, and then a prowler hit him and knocked him down.

"Poor chap," said Mr. Costello, pushing the Go button. "Some of 'em just won't learn."

I think he regretted it very much. I don't know if the blonde woman did. She didn't even look.

"Are you the mayor?" I asked him.

"Oh, no," he said. "I'm a sort of broker. A little of this, a little of that. I'm able to help out a bit."

"Help out?"

"Purser," he said confidentially, "I'm a citizen of Borinquen now. This is my adopted land and I love it. I mean to do everything in my power to help it. I

don't care about the cost. This is a people that has found the *truth*, Purser. It awes me. It makes me humble."

"I . . ."

"Speak up, man. I'm your *friend*."

"I appreciate that, Mr. Costello. Well, what I was going to say, I saw that Central and all. I just haven't made up my mind. I mean whether it's good or not."

"Take your time, take your time," he said in the big soft voice. "Nobody has to *make* a man see a truth, am I right? A real truth? A man just sees it all by himself."

"Yeah," I agreed. "Yeah, I guess so." Sometimes it was hard to find an answer to give Mr. Costello.

THE car pulled up beside a building. The blonde woman pulled herself together. Mr. Costello opened the door for her with his own hands. She got out. Mr. Costello rapped the trideo screen in front of him.

He said, "Make it a real good one, Lucille, real good. I'll be watching."

She looked at him. She gave me a small smile. A man came down the steps and she went with him up into the building.

We moved off.

I said, "She's the prettiest woman I ever saw."

He said, "She likes you fine, Purser."

I thought about that. It was too much.

He asked, "How would you like to have her for your very own?"

"Oh," I said, "she wouldn't."

"Purser, I owe you a big favor. I'd like to pay it back."

"You don't owe me a thing, Mr. Costello!"

We drank some of the wine. The big car slid silently along. It went slowly now, headed back out to the spaceport.

"I need some help," he said after a time. "I know you, Purser. You're just the kind of man I can use. They say you're a mathematical genius."

"Not mathematics exactly, Mr. Costello. Just numbers—statistics—conversion tables and like that. I couldn't do astrogation or theoretical physics and such. I got the best job I could have right now."

"No, you haven't. I'll be frank with you. I don't want any more responsibility on Borinquen than I've got, you understand, but the people are forcing it on me. They want order, peace and order—tidiness. They want to be as nice and tidy as one of your multiple manifests. Now I could organize them, all right, but I need a tidy brain like yours to keep them organized. I want full birth-and

death-rate statistics, and then I want them projected so we can get policy. I want calory-counts and rationing, so we can use the food supply the best way. I want —well,you see what I mean. Once the devil is routed—"

"What devil?"

"The trappers," he said grayly.

"Are the trappers really harming the city people?"

He looked at me, shocked. "They go out and spend weeks alone by themselves, with their own evil thoughts. They are wandering cells, wild cells in the body of humanity. They must be destroyed."

I COULDN'T help but think of my consignments. "What about the fur trade, though?"

He looked at me as if I had made a pretty grubby little mistake. "My dear Purser," he said patiently, "would you set the price of a few pelts above the immortal soul of a race?"

I hadn't thought of it that way.

He said urgently, "This is just the beginning, Purser. Borinquen is only a start. The unity of that great being, Humanity, will become known throughout the Universe." He closed his eyes. When he opened them, the organ tone was gone. He said in his old, friendly voice, "And you and I, we'll show 'em how to do it, hey, boy?"

I leaned forward to look up to the top of the shining spire of the spaceship. "I sort of like the job I've got. But—my contract *is* up four months from now . . ."

The car turned into the spaceport and hummed across the slag area.

"I think I 'can count on you," he said vibrantly. He laughed. "Remember this little joke, Purser?"

He clicked a switch, and suddenly my own voice filled the tonneau. "*I take bribes from passengers.*"

"Oh, that," I said, and let loose one *ha* of a *ha-ha* before I understood what he was driving at. "Mr. Costello, you wouldn't use that against me."

"What do you take me for?" he demanded, in wonderment.

Then we were at the ramp. He got out with me. He gave me his hand. It was warm and hearty.

"If you change your mind about the Purser's job when your contract's up, son, just buzz me through the field phone. They'll connect me. Think it over until you get back here. Take your time." His hand clamped down on my biceps so hard I winced. "But you're not going to take any longer than that, are you, my boy?"

"I guess not," I said.

He got into the front, by the chauffeur, and zoomed away.

I stood looking after him and, when the car was just a dark spot on the slag area, I sort of came to myself. I was standing alone on the foot of the ramp. I felt very exposed.

I turned and ran up to the airlock, hurrying, hurrying to get near people.

THAT was the trip we shipped the crazy man. His name was Hynes. He was United Earth Consul at Borinquen and he was going back to report. He was no trouble at first, because diplomatic passports are easy to process. He knocked on my door the fifth watch out from Borinquen. I was glad to see him. My room was making me uneasy and I appreciated his company.

Not that he was really company. He was crazy. That first time, he came busting in and said, "I hope you don't mind, Purser, but if I don't talk to somebody about this, I'll go out of my mind." Then he sat down on the end of my bunk and put his head in his hands and rocked back and forth for a long time, without saying anything. Next thing he said was, "Sorry," and out he went. Crazy, I tell you.

But he was back in again before long. And then you never heard such ravings.

"Do you know what's happened to Borinquen?" he'd demand. But he didn't want any answers. He had the answers. "I'll tell you what's wrong with Borinquen—Borinquen's gone mad!" he'd say.

I went on with my work, though there wasn't much of it in space, but that Hynes just couldn't get Borinquen out of his mind.

He said, "You wouldn't believe it if you hadn't seen it done. First the little wedge, driven in the one place it might exist—between the urbans and the trappers. There was never any conflict between them—never! All of a sudden, the trapper was a menace. How it happened, why, God only knows. First, these laughable attempts to show that they were an unhealthy influence. Yes, laughable—how could you take it seriously?

"And then the changes. You didn't have to prove that a trapper had done anything. You only had to prove he was a trapper. That was enough. And the next thing—how could you *anticipate* anything as mad as this?"—he almost screamed—"the next thing was to take anyone who wanted to be alone and lump him with the trappers. It all happened so fast—it happened in our sleep. And all of a sudden you were afraid to be alone in a room for a *second*. They left their homes. They built barracks.

Everyone afraid of everyone else, afraid, afraid . . .

"Do you know what they *did?*" he roared. "They burned the paintings, every painting on Borinquen they could find that had been done by one artist. And the few artists who survived as artists—I've seen them. By twos and threes, they work together on the one canvas."

He cried. He actually sat there and cried.

He said, "There's food in the stores. The crops come in. Trucks run, planes fly, the schools are in session. Bellies get full, cars get washed, people get rich. I know a man called Costello, just in from Earth a few months, maybe a year or so, and already owns half the city."

"Oh, I know Mr. Costello," I said.

"Do you now! How's that?"

I TOLD him about the trip out with Mr. Costello. He sort of backed off from me. "*You're* the one!"

"The one what?" I asked in puzzlement.

"*You're* the man who testified against your Captain, broke him, made him resign."

"I did no such a thing."

"I'm the Consul. It was my hearing, man! I was *there!* A recording of the Captain's voice, admitting to insanity, declaring he'd take a gun to his crew if they overrode him. Then your recorded testimony that it was his voice, that you were present when he made the statement. And the Third Officer's recorded statement that all was not well on the bridge. The man denied it, but it was his voice."

"Wait, wait," I said. "I don't believe it. That would need a trial. There was no trial. I wasn't called to any trial."

"There would have been a trial, you idiot! But the Captain started raving about draw poker without a draw, about the crew fearing poisoning from the cook, about the men wanting witnesses even to change the bridge-watch. Maddest thing I ever heard. He realized it suddenly, the Captain did. He was old, sick, tired, beaten. He blamed the whole thing on Costello, and Costello said he got the recordings from you."

"Mr. Costello wouldn't do such a thing!" I guess I got mad at Mr. Hynes then. I told him a whole lot about Mr. Costello, what a big man he was. He started to tell me how Mr. Costello was forced off the Triumverate for making trouble in the high court, but they were lies and I wouldn't listen. I told him about the poker, how Mr. Costello saved us from the cheaters, how he saved us from poisoning, how he made the ship safe for us all.

I remember how he looked at me then. He sort of whispered, "What has happened to human beings? What have we done to ourselves with these centuries of peace, with confidence and co-operation and no conflict? Here's distrust by man for man, waiting under a thin skin to be punctured by just the right vampire, waiting to hate itself and kill itself all over again . . .

"My *God!*" he suddenly screamed at me. "Do you know what I've been hanging onto? The idea that, for all its error, for all its stupidity, this One Humanity idea on Borinquen was a *principle?* I hated it, but because it was a principle, I could respect it. It's Costello—Costello, who doesn't gamble, but who uses fear to change the poker rules—Costello, who doesn't eat your food, but makes you fear poison—Costello, who can see three hundred years of safe interstellar flight, but who through fear makes the watch officers doubt themselves without a witness—Costello, who runs things without being seen!

"My God, Costello doesn't *care!* It isn't a principle at all. It's just Costello spreading fear anywhere, everywhere, to make himself strong!"

He rushed out, crying with rage and hate. I have to admit I was sort of jolted. I guess I might even have thought about the things he said, only he killed himself before we reached Earth. He was crazy.

WE made the rounds, same as ever, scheduled like an interurban line: Load, discharge, blastoff, fly and planetfall. Refuel, clearance, manifest. Eat, sleep, work. There was a hearing about Hynes. Mr. Costello sent a spacegram with his regrets when he heard the news. I didn't say anything at the hearing, just that Mr. Hynes was upset, that's all, and it was about as true as anything could be. We shipped a second engineer who played real good accordian. One of the inboard men got left on Carànho. All the usual things, except I wrote up my termination with no options, ready to file.

So in its turn we made Borinquen again, and what do you know, there was the space fleet of United Earth. I never guessed they had that many ships. They sheered us off, real Navy: all orders and no information. Borinquen was buttoned up tight; there was some kind of fighting going on down there. We couldn't get or give a word of news through the quarantine. It made the skipper mad and he had to use part of the cargo for fuel, which messed up my records six ways from the middle. I stashed

my termination papers away for the time being.

And in its turn, Sigma, where we lay over a couple of days to get back in the rut, and, same as always, Nightingale, right on schedule again.

And who should be waiting for me at Nightingale but Barney Roteel, who was medic on my first ship, years back when I was fresh from the Academy. He had a pot belly now and looked real successful. We got the jollity out of the way and he settled down and looked me over, real sober. I said it's a small Universe—I'd known he had a big job on Nightingale, but imagine him showing up at the spaceport just when I blew in!

"I showed up *because* you blew in, Purser," he answered.

Then before I could take that apart, he started asking me questions. Like how was I doing, what did I plan to do.

I said, "I've been a purser for years and years. What makes you think I want to do anything different?"

"Just wondered."

I wondered, too. "Well," I said, "I haven't exactly made up my mind, you might say—and a couple of things have got in the way—but I did have a kind of offer." I told him just in a general way about how big a man Mr. Costello was on Borinquen now, and how he wanted me to come in with him. "It'll have to wait, though. The whole damn Space Navy has a cordon around Borinquen. They wouldn't say why. But whatever it is, Mr. Costello'll come out on top. You'll see."

Barney gave me a sort of puckered-up look. I never saw a man look so weird. Yes, I did, too. It was the old Iron Man, the day he got off the ship and resigned.

"Barney, what's the matter?" I asked.

He got up and pointed through the glass door-lights to a white monowheel that stood poised in front of the receiving station. "Come on," he said.

"Aw, I can't. I got to—"

"Come on!"

I shrugged. Job or no, this was Barney's bailiwick, not mine. He'd cover me.

He held the door open and said, like a mind reader, "I'll cover you."

We went down the ramp and climbed in and skimmed off.

"Where are we going?"

But he wouldn't say. He just drove.

NIGHTINGALE'S a beautiful place. The most beautiful of them all, I think, even Sigma. It's run by the UE, one hundred per cent; this is one planet with

no local options, but *none*. It's a regular garden of a world and they keep it that way.

We topped a rise and went down a curving road lined with honest-to-God Lombardy poplars from Earth. There was a little lake down there and a sandy beach. No people.

The road curved and there was a yellow line across it and then a red one, and after it a shimmering curtain, almost transparent. It extended from side to side as far as I could see.

"Force-fence," Barney said and pressed a button on the dash.

The shimmer disappeared from the road ahead, though it stayed where it was at each side. We drove through and it formed behind us, and we went down the hill to the lake.

Just this side of the beach was the coziest little Sigma cabana I've seen yet, built to bug the slope and open its arms to the sky. Maybe when I get old they'll turn me out to pasture in one half as good.

While I was goggling at it, Barney said, "Go on."

I looked at him and he was pointing. There was a man down near the water, big, very tanned, built like a space-tug. Barney waved me on and I walked down there.

The man got up and turned to me. He had the same wide-spaced, warm deep eyes, the same full, gentle voice. "Why, it's the Purser! Hi, old friend. So you came, after all!"

It was sort of rough for a moment. Then I got it out. "Hi, Mr. Costello."

He banged me on the shoulder. Then he wrapped one big hand around my left biceps and pulled me a little closer. He looked uphill to where Barney leaned against the monowheel, minding his own business. Then he looked across the lake, and up in the sky.

He dropped his voice. "Purser, you're just the man I need. But I told you that before, didn't I?" He looked around again. "We'll do it yet, Purser. You and me, we'll hit the top. Come with me. I want to show you something."

He walked ahead of me toward the beach margin. He was wearing only a breech-ribbon, but he moved and spoke as if he still had the armored car and the six prowlers. I stumbled after him.

He put a hand behind him and checked me, and then knelt. He said, "To look at them, you'd think they were all the same, wouldn't you? Well, son, you just let me show you something."

I looked down. He had an anthill. They weren't like Earth ants. These were bigger, slower, blue, and they had eight legs. They built nests of sand tied together

with mucus, and tunneled under them so that the nests stood up an inch or two like on little pillars.

"They look the same, they act the same, but you'll see," said Mr. Costello.

He opened a synthine pouch that lay in the sand. He took out a dead bird and the thorax of what looked like a Caràmho roach, the one that grows as long as your forearm. He put the bird down here and the roach down yonder.

"Now," he said, "watch."

THE ants swarmed to the bird, pulling and crawling. Busy. But one or two went to the roach and tumbled it and burrowed around. Mr. Costello picked an ant off the roach and dropped it on the bird. It weaved around and shouldered through the others and scrabbled across the sand and went back to the roach.

"You see, you *see?*" he said, enthusiastic. "Look."

He picked an ant off the dead bird and dropped it by the roach. The ant wasted no time or even curiosity on the piece of roach.

It turned around once to get its bearings, and then went straight back to the dead bird.

I looked at the bird with its clothing of crawling blue, and I looked at the roach with its two or three voracious scavengers. I looked at Mr. Costello.

He said raptly, "See what I mean? About one in thirty eats something different. And that's all we need. I tell you, Purser, wherever you look, if you look long enough, you can find a way to make most of a group turn on the rest."

I watched the ants. "They're not fighting."

"Now wait a minute," he said swiftly. "Wait a minute. All we have to do is let these bird-eaters know that the roach-eaters are dangerous."

"They're not dangerous," I said. "They're just different."

"What's the difference, when you come right down to it? So we'll get the bird-eaters scared and they'll kill all the roach-eaters."

"Yes, but why, Mr. Costello?"

He laughed. "I like you, boy. I do the thinking, you do the work. I'll explain it to you. They all look alike. So once we've made 'em drive out these—" he pointed to the minority around the roach—"they'll never know which among 'em might be a roach-eater. They'll get so worried, they'll do anything to keep from being suspected of roach-eating. When they get scared enough, we can make 'em do anything we want."

He hunkered down to watch the ants. He picked up a roach-eater and put it on the bird. I got up.

"Well, I only just dropped in, Mr. Costello," I said.

"I'm not an ant," said Mr. Costello. "As long as it makes no difference to me what they eat, I can make 'em do anything in the world I want."

"I'll see you around," I said.

He kept on talking quietly to himself as I walked away. He was watching the ants, figuring, and paid no attention to me.

I went back to Barney. I asked, sort of choked, "What is he doing, Barney?"

"He's doing what he has to do," Barney said.

WE went back to the monowheel and up the hill and through the force-gate. After a while, I asked, "How long will he be here?"

"As long as he wants to be." Barney was kind of short about it.

"Nobody wants to be locked up."

He had that odd look on his face again. "Nightingale's not a jail."

"He can't get out."

"Look, chum, we could start him over. We could even make a purser out of him. But we stopped doing that kind of thing a long time ago. We let a man do what he wants to do."

"He never wanted to be boss over an anthill."

"He didn't?"

I guess I looked as if I didn't understand that, so he said, "All his life he's pretended he's a man and the rest of us are ants. Now it's come true for him. He won't run human anthills any more because he will never again get near one."

I looked through the windshield at the shining finger that was my distant ship. "What happened on Borinquen, Barney?"

"Some of his converts got loose around the System. That Humanity One idea had to be stopped." He drove a while, seeing badly out of a thinking face. "You won't take this hard, Purser, but you're a thick-witted ape. I can say that if no one else can."

'All right," I said. "Why?"

"We had to *smash* into Borinquen, which used to be so free and easy. We got into Costello's place. It was a regular fort. We got him and his files. We didn't get his girl. He killed her, but the files were enough."

After a time I said, "He was always a good friend to me."

"Was he?"

I didn't say anything. He wheeled up to the receiving station and stopped the machine.

He said, "He was all ready for you if you came to work for him. He had a voice recording of you large as life, saying 'Sometimes a man's just *got* to be by himself.' Once you went to work for him, all he needed to do to keep you in line was to threaten to put that on the air."

I opened the door. "What did you have to show him to me for?"

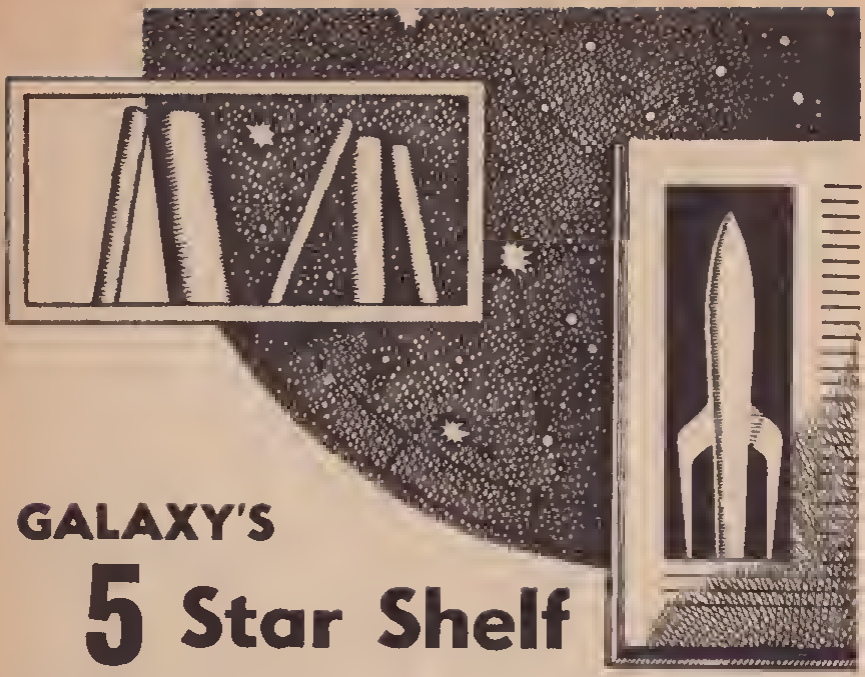
"Because we believe in letting a man do what he wants to do, as long as he doesn't hurt the rest of us. If you want to go back to the lake and work for Costello, for instance, I'll take you there."

I closed the door carefully and went up the ramp to the ship.

I did my work and when the time came, we blasted off. I was mad. I don't think it was about anything Barney told me. I wasn't especially mad about Mr. Costello or what happened to him, because Barney's the best Navy psych doc there is and Nightingale's the most beautiful hospital planet in the Universe.

What made me mad was the thought that never again would a man as big as Mr. Costello give that big, warm, soft, strong friendship to a lunkhead like me.

—THEODORE STURGEON



GALAXY'S 5 Star Shelf

CHILDREN OF THE ATOM by *Wilmar H. Shiras. Gnome Press, New York,* 1953. 216 *pages,* $2.75.

THE theme of the mutant child conceived in the vicinity of an atomic explosion has been worked over almost to boredom since 1945. Professional science fiction writers of all qualities have tried their hands at it, but it is not too much to say that none of them has approached, much less equaled, the sensitive charm and understanding that Wilmar Shiras, a heretofore unknown writer, here brings to her fictional analysis of the problems of super-genius children.

Those of us who happened to read her first *Astounding* novelet "In Hiding" more than five years ago will never forget the delighted shock of finding someone writing with real tenderness and perception about a problem which, in some degree at least, comes close to every one of us.

For those who missed "In Hiding" and its sequels, it should be mentioned that the story is based on the assumption that after a catastrophic atomic explosion in the U.S. in 1958, a number of mutant children are born near

the site of the tragedy. These super-genius kids hide their qualities until a psychiatrist named Peter Welles discovers one of them, a boy, and leads him to an understanding of his social problems, the problems of a truly intelligent being in a world of quasi-morons.

The story develops as the two seek out the other mutants and bring them together in a special school for handling their own difficulties, which are primarily emotional rather than intellectual. For these children find it difficult to adjust to "life."

It is a pleasure to report that Mrs. Shiras's finished novel, which contains nearly as much new material as reprint, measures up to the high standard set in "In Hiding." In one of the two new sections, the kids themselves begin solving their own social problems with a delightful mixture of mature scientific knowledge and of instinctive "peck order" psychology. In the second and last, they arrive at the only possible solution to their "differentness," following an attack upon them by a rabble-rousing radio preacher.

The book now has a story line and a richness of character development that lift it out of the realm of the standard "super-genius" tale. Unreservedly recommended.

LOST CIVILIZATION; THREE ADVENTURE NOVELS by H. Rider Haggard. Dover Publications, New York, 1953, 776 *pages,* $3.95

IT IS pleasant to have these three historical novels back in print again. Haggard stands up amazingly well against the erosion of time. He is wordy and slow, it is true, but he is also vivid and satisfying.

The book contains *Montezuma's Daughter,* a rich and brutal narrative of the fall of the Aztec Empire in Mexico; *Eric Brighteyes,* a retelling of one of the Icelandic sagas; and *Cleopatra,* a romantic version of the ancient tragedy of the Egyptian Queen.

These ornately embroidered tapestries of imaginative adventure have rarely been surpassed for color, though they may have been for historical accuracy, in the half century since Haggard first set them down. Eminently readable.

THE SECRET MASTERS by Gerald Kersh. Ballantine Books, New York, 1953. 225 *pages,* $2.00 *cloth,* 35c *paper*

WHEN an expert Britisher starts out to write a suspense novel and gives it everything he's got, he's hard to surpass. Gerald Kersh is definite-

ly one of the British experts. *The Secret Masters*, a suspense novel with science fiction aspects, provides one of Kersh's most continuously thrilling narratives and along with it a set of characters so three dimensional and individual that they seem to be living portraits.

The story is not quite as convincing as the characters nor as effective as the style in which it is written. It concerns itself with the uncovering of an international plot by the most powerful men in the world to destroy five-sixths of the human race by means of a fantastic new type of atomic bomb and to use most of the remaining people in a "sciocratic" slavocracy.

The story gradually collapses in a morass of unresolved and unfinished business in the last few chapters. But don't let this defect hinder you from reading the book. It is still, on the whole, a first rate science fiction goose pimpler.

THE ATOM STORY by J. G. Feinberg. Philosophical Library, New York, 1953. 243 *pages*, $4.75

BY now, there must be hundreds of books, in and out of print, that purport to tell "The Atom Story." Generally they are all pretty much alike: gee-whiz stuff on $E=MC_2$ atomic bombs, and the wonders of our atomic future—provided we don't commit suicide meanwhile on a global scale.

Dr. Feinberg has written an entirely different sort of book. A historian of science and a student of one of Britain's most celebrated physicists, Sir Frederick Soddy, he has outlined in rich detail the whole story of Man's ideas about ultimate particles, the composition of matter, and similar affairs, and has done so with a liveliness that is in no way touched with sensationalism so dear to Sunday supplement editors and authors alike.

We learn what were the contributions to atomic theory (or its opposing theories) by everyone from Democritus on down. We read with new fascination the story of the momentous events of 1939-1945 as seen through British eyes; and are given a great deal of the basics of modern nuclear physics and chemistry in completely understandable language.

The book gains velocity and charm from its shrewd and often controversial judgments of people, its almost conversational style, and the warmth of conviction with which its author approaches his momentous subject. Highly rewarding for the curious-minded layman.

THE ABYSS OF WONDERS by Perley Poore Sheehan. Polaris Press, Box 159, Reading, Pa., 1953. 190 pages, $3.00

LLOYD ESCHBACH'S second item in his Polaris Fantasy Library of pre-1920 reprints does not stack up as well for the general reader as did his first, *The Heads of Cerberus* by Francis Stevens.

This new item is really a fairy tale for youngsters, about how a young American, John McGoff, finds a magic city, complete with dream people, at the site of Genghis Khan's tomb in the Gobi Desert. He does this with the supernatural assistance of a number of "stick-figures" such as an old Chinese laundryman and an eccentric Russian cobbler.

There is an idealistic love story, and a self-sacrificing grandma, and various other mechanical devices, and the whole is written in a kindergarten style that is irritating to most modern readers.

However, I am sure that the book will appeal to a generation with memories that reach back to its original appearance in *Argosy* in 1915. But surely there are old stories much worthier of reprint. I hope Mr. Eschbach finds them.

WORLD OUT OF MIND by J. T. M'Intosh. Doubleday, New York, 1953. 222 pages, $2.75

ANOTHER alien invasion story, with a hero who is supposed to be "advance agent" for the invaders, this is a slick job—one of those fast-paced melodramas of the "might-be" that are always intriguing no matter how trite the subject.

The events take place in a society in which everyone achieves his true niche in life by Taking Tests. The smarter you are, the higher you climb, until you become a White Star, of which there may be fewer than a dozen in any one generation.

Eldin Raigmore, a "man with no past," begins to take the tests soon after he has encountered beautiful Alison Hever, youngest living White Star. Before long, he is a White Star, too, and on the way to preparing the world to be taken over by the aliens.

However, he changes his mind (love, ah, love!) and the invaders are finally beaten off in the last few pages of the book because (among other reasons) they are purely logical and do not know emotion.

Why logic forces them to retreat is one of the high points of the book. —GROFF CONKLIN

Hall of Mirrors

By FREDRIC BROWN

It is a tough decision to make

—whether to give up your life

so you can live it over again!

FOR an instant you think. it is temporary blindness, this sudden dark that comes in the middle of a bright afternoon.

It *must* be blindness, you think; could the sun that was tanning you have gone out instantaneously, leaving you in utter blackness?

Then the nerves of your body tell you that you are *standing,* whereas only a second ago you were sitting comfortably, almost reclining, in a canvas chair. In the patio of a friend's house in Beverly Hills. Talking to Barbara, your fiancée. Looking at Barbara—Barbara in a swim suit—her skin golden tan in the brilliant sunshine, beautiful.

Illustrated by VIDMER

You wore swimming trunks. Now you do not feel them on you; the slight pressure of the elastic waistband is no longer there against your waist. You touch your hands to your hips. You are naked. And standing.

Whatever has happened to you is more than a change to sudden darkness or to sudden blindness.

You raise your hands gropingly before you. They touch a plain smooth surface, a wall. You spread them apart and each hand reaches a corner. You pivot slowly. A second wall, then a third, then a door. You are in a closet

about four feet square.

Your hand finds the knob of the door. It turns and you push the door open.

There is light now. The door has opened to a lighted room . . . a room that you have never seen before.

IT is not large, but it is pleasantly furnished — although the furniture is of a style that is strange to you. Modesty makes you open the door cautiously the rest of the way. But the room is empty of people.

You step into the room, turning to look behind you into the closet, which is now illuminated by light from the room. The closet is and is not a closet; it is the size and shape of one, but it contains nothing, not a single hook, no rod for hanging clothes, no shelf. It is an empty, blank-walled, four-by-four foot space.

You close the door to it and stand looking around the room. It is about twelve by sixteen feet. There is one door, but it is closed. There are no windows. Five pieces of furniture. Four of them you recognize—more or less. One looks like a very functional desk. One is obviously a chair . . . a comfortable-looking one. There is a table, although its top is on several levels instead of only one. Another is a bed, or couch. Something shimmering is lying across it and you walk over and pick the shimmering something up and examine it. It is a garment.

You are naked, so you put it on. Slippers are part way under the bed (or couch) and you slide your feet into them. They fit, and they feel warm and comfortable as nothing you have ever worn on your feet has felt. Like lamb's wool, but softer.

You are dressed now. You look at the door—the only door of the room except that of the closet (closet?) from which you entered it. You walk to the door and before you try the knob, you see the small typewritten sign pasted just above it that reads:

This door haa a time lock set to open in one hour. For reasons you will soon understand, it is better that you do not leave this room before then. There is a letter for you on the desk. Please read it.

It is not signed. You look at the desk and see that there is an envelope lying on it.

You do not yet go to take that envelope from the desk and read the letter that must be in it.

Why not? Because you are frightened.

You see other things about the room. The lighting has no source that you can discover. It comes from nowhere. It is not indirect lighting; the ceiling and the walls

are not reflecting it at all.

They didn't have lighting like that, back where you came from. What did you mean by *back where you came from?*

You close your eyes. You tell yourself: *I am Norman Hastings. I am an associate professor of mathematics at the University of Southern California. I am twenty-five years old, and this is the year nineteen hundred and fifty-four.*

You open your eyes and look again.

THEY didn't use that style of furniture in Los Angeles—or anywhere else that you know of—in 1954. That thing over in the corner—you can't even guess what it is. So might your grandfather, at your age, have looked at a television set.

You look down at yourself, at the shimmering garment that you found waiting for you. With thumb and forefinger you feel its texture.

It's like nothing you've ever touched before.

I am Norman Hastings. This is nineteen hundred and fifty-four.

Suddenly you must know, and at once.

You go to the desk and pick up the envelope that lies upon it. Your name is typed on the outside. *Norman Hastings.*

Your hands shake a little as you open it. Do you blame them?

There are several pages, typewritten. Dear Norman, it starts. You turn quickly to the end to look for the signature. It is unsigned.

You turn back and start reading.

"Do not be afraid. There is nothing to fear, but much to explain. Much that you must understand before the time lock opens that door. Much that you must accept and—obey.

"You have already guessed that you are in the future—in what, to you, seems to be the future. The clothes and the room must have told you that. I planned it that way so the shock would not be too sudden, so you would realize it over the course of several minutes rather than read it here—and quite probably disbelieve what you read.

"The 'closet' from which you have just stepped is, as you have by now realized, a time machine. From it you stepped into the world of 2004. The date is April 7th, just fifty years from the time you last remember.

"You cannot return.

"I did this to you and you may hate me for it; I do not know. That is up to you to decide, but it does not matter. What does matter, and not to you alone, is another decision which you must

make. I am incapable of making it.

"Who is writing this to you? I would rather not tell you just yet. By the time you have finished reading this, even though it is not signed (for I knew you would look first for a signature), I will not need to tell you who I am. You will know.

"I am seventy-five years of age. I have, in this year 2004, been studying 'time' for thirty of those years. I have completed the first time machine ever built —and thus far, its construction, even the fact that it has been constructed, is my own secret.

"You have just participated in the first major experiment. It will be your responsibility to decide whether there shall ever be any more experiments with it, whether it should be given to the world, or whether it should be destroyed and never used again."

END of the first page. You look up for a moment, hesitating to turn the next page. Already you suspect what is coming.

You turn the page.

"I constructed the first time machine a week ago. My calculations had told me that it would work, but not how it would work. I had expected it to send an object back in time—it works backward in time only, not forward—physically unchanged and intact.

"My first experiment showed me my error. I placed a cube of metal in the machine—it was a miniature of the one you just walked out of—and set the machine to go backward ten years. I flicked the switch and opened the door, expecting to find the cube vanished. Instead I found it had crumbled to powder.

"I put in another cube and sent it two years back. The second cube came back unchanged, except that it was newer, shinier.

"That gave me the answer. I had been expecting the cubes to go back in time, and they had done so, but not in the sense I had expected them to. Those metal cubes had been fabricated about three years previously. I had sent the first one back years before it had existed in its fabricated form. Ten years ago it had been ore. The machine returned it to that state.

"Do you see how our previous theories of time travel have been wrong? We expected to be able to step into a time machine in, say, 2004, set it for fifty years back, and then step out in the year 1954 . . . but it does not work that way. The machine does not move in time. Only whatever is within the machine is affected, and then just with relation to itself and not to the rest of the Universe.

"I confirmed this with guinea pigs by sending one six weeks old five weeks back and it came out a baby.

"I need not outline all my experiments here. You will find a record of them in the desk and you can study it later.

"Do you understand now what has happened to you, Norman?"

YOU begin to understand. And you begin to sweat.

The *I* who wrote that letter you are now reading is you, yourself at the age of seventy-five, in this year of 2004. You are that seventy-five-year-old man, with your body returned to what it had been fifty years ago, with all the memories of fifty years of living wiped out.

You invented the time machine.

And before you used it on yourself, you made these arrangements to help you orient yourself. You wrote yourself the letter which you are now reading.

But if those fifty years are—to you—gone, what of all your friends, those you loved? What of your parents? What of the girl you are going—were going—to marry?

You read on:

"Yes, you will want to know what has happened. Mom died in 1963, Dad in 1968. You married Barbara in 1956. I am sorry to tell you that she died only three years later, in a plane crash. You have one son. He is still living; his name is Walter; he is now forty-six years old and is an accountant in Kansas City."

Tears come into your eyes and for a moment you can no longer read. Barbara dead—dead for forty-five years. And only minutes ago, in subjective time, you were sitting next to her, sitting in the bright sun in a Beverly Hills patio . . .

You force yourself to read again.

"But back to the discovery. You begin to see some of its implications. You will need time to think to see all of them.

"It does not permit time travel as we have thought of time travel, but it gives us immortality of a sort. Immortality of the kind I have temporarily given us.

"*Is it good?* Is it worth while to lose the memory of fifty years of one's life in order to return one's body to relative youth? The only way I can find out is to try, as soon as I have finished writing this and made my other preparations.

"You will know the answer.

"But before you decide, remember that there is another problem, more important than the psychological one. I mean overpopulation.

"If our discovery is given to

the world, if all who are old or dying can make themselves young again, the population will almost double every generation. Nor would the world—not even our own relatively enlightened country—be willing to accept compulsory birth control as a solution.

"Give this to the world, as the world is today in 2004, and within a generation there will be famine, suffering, war. Perhaps a complete collapse of civilization.

"Yes, we have reached other planets, but they are not suitable for colonizing. The stars may be our answer, but we are a long way from reaching them. When we do, someday, the billions of habitable planets that must be out there will be our answer . . . our living room. But until then, what is the answer?

"Destroy the machine? But think of the countless lives it can save, the suffering it can prevent. Think of what it would mean to a man dying of cancer. Think . . ."

THINK. You finish the letter and put it down.

You think of Barbara dead for forty-five years. And of the fact that you were married to her for three years and that those years are lost to you.

Ffty years lost. You damn the old man of seventy-five whom you became and who has done this to you . . . who has given you this decision to make.

Bitterly, you know what the decision must be. You think that *he* knew, too, and realize that he could safely leave it in your hands. Damn him, he *should* have known.

Too valuable to destroy, too dangerous to give.

The other answer is painfully obvious.

You must be custodian of this discovery and keep it secret until it is safe to give, until mankind has expanded to the stars and has new worlds to populate, or until, even without that, he has reached a state of civilization where he can avoid overpopulation by rationing births to the number of accidental—or voluntary—deaths.

If neither of those things has happened in another fifty years (and are they likely so soon?), then you, at seventy-five, will be writing another letter like this one. You will be undergoing another experience similar to the one you're going through now. And making the same decision, of course.

Why not? You'll be the same person again.

Time and again, to preserve this secret until Man is ready for it.

How often will you again sit

at a desk like this one, thinking the thoughts you are thinking now, feeling the grief you now feel?

There is a click at the door and you know that the time lock has opened, that you are now free to leave this room, free to start a new life for yourself in place of the one you have already lived and lost.

But you are in no hurry now to walk directly through that door.

You sit there, staring straight ahead of you blindly, seeing in your mind's eye the vista of a set of facing mirrors, like those in an old-fashioned barber shop, reflecting the same thing over and over again, diminishing into far distance.

—FREDRIC BROWN

WHO'S PREDICTING?

Wrote G. K. Chesterton in *The Nopoleon of Notting Hill:* "The humon race, to which so many of my readers belong, hos been playing ot children's gomes from the beginning . . . and one of the gomes to which it is most ottached is colled . . . 'Cheat the Prophet.' The ployers listen very carefully and respectfully to all that the clever men have to say about what is to happen in the next generotion. The players then woit until all the clever men are dead, and bury them nicely. They then go and do something else. That is all. For o race of simple tastes, however, it is great fun."

Nobody is more whimsical thon a supposedly practical man, ond nobody is more odept at honging millstanes on progress:

"What, ride o horse when I still have a pair of good legs?" "Fulton's Folly is right; wind is the anly woy to sail." "Get a horse!" "It is mathematically demonstrable that a heavier-thon-air croft connot get off the ground." "Suicide ships, that's what planes are." "Rockets are all right for toys, but that's all." "Okay, so we can send an unmonned rocket 250 miles up, but who'd be crozy enough to get inside it?"

That is where monkind is now, having drogged the millstone high obove Earth. The next orguments are predictable: "Sure, we can put an artificial sotellite 1000 miles out in spoce, but we'll never reach the Moon." "All right, we got to the Moon, but the plonets ore a different matter." "Yes, but the planets are right in our own solar system; it would take *centuries* to reach even the neorest stor . . ."

Mankind will not run out of millstones or progress.

Origins
of Galactic Medicine

By EDWARD WELLEN

Suffer from Deluminescence? Dementia Recap? Here's what to do till the doctor comes . . . many centuries from now!

Illustrated by STONE

Dementia Recapitulatica: *atrophy of the cortex and of bilateral areas in the temporal and frontal lobes, characterized by overlapping of past and present thoughts.*

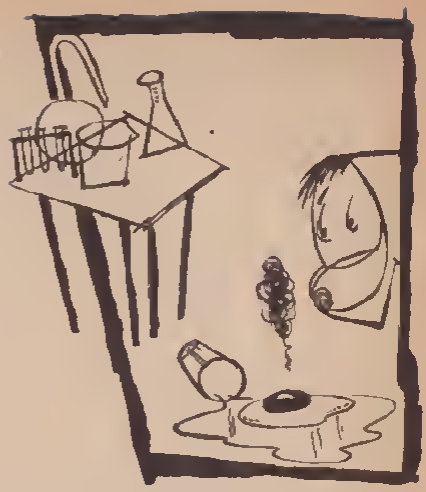
ETIOLOGY: The rejuvenizing drug that the Egn'nootys of Botein III use to reverse the processes of growth causes dementia recapitulatica. Llaro Fsapilt (2906-2949) discovered the drug and was the first Egn'nooty to use it. His fear of aging impelled him to find a way of nullifying the process; and when at last he perfected the drug, he drank it eagerly. Unfortunately, he downed an overdose and regressed to an embryo before his assistant could help him.

Following users have shown more caution. At some point in their middle years they take the drug, regress to infancy, then once more proceed through childhood and adolescence. As the Egn'-nootys re-approach maturity, however, there is the onset of cortical and lobar atrophy, and the symptoms of dementia recap manifest themselves.

Symptoms and Signs: Past and present thoughts overlap, and the patient is unable to utilize recalled material in forming new concepts. One sufferer may become depressed, irritable, and suspicious, his previous personality acting as a shadowy hangover. Another may become euphoric, happily exchanging childhood reminiscences with himself.

Diagnosis and Prognosis: Like the Egn'nootys, the Ghlenopys of Klinehly VI are humanoid and suffer cortical and lobar atrophy. But they should present no diagnostic problem, for the etiology and symptomatology of their condition differ from those of dementia recap. In the case of the Ghlenopys, obstetricians deliver viable foetuses at varying periods before full term. This is because of the special qualities inhering in each stage as the foetus recapitulates the evolution of the race.

The three months foetus has vibrissal feelers and strong pincers that equip it for tunneling.



The four month foetus has ballast ports and snorkel tubes that fit it for diving. The five month foetus has a thick lanugo—an atavistic hairy coat—that enables it to withstand freezing temperatures. The six month foetus has adhesive digits that let it walk on the walls and ceiling of a room; this ability is invaluable in a spaceship during free flight, and many six month Ghlenopy foetuses grow to be crewmen. The seven month foetus becomes the humanoid type.

Because the Ghlenopys have been practicing this form of birth control universally, no one has any idea what the full term Ghlenopy would be like. The Ghlenopy foetus readily adapts to its atrophied state and shows no symptoms beyond those common to immaturity.

The dementia recap sufferer, with proper treatment, may hope to live a relatively normal existence.

Treatment: Occupational therapy best serves both society and the patient. The dementia recap sufferer finds his groove in teaching history, writing poetry, or ghost-writing political speeches.

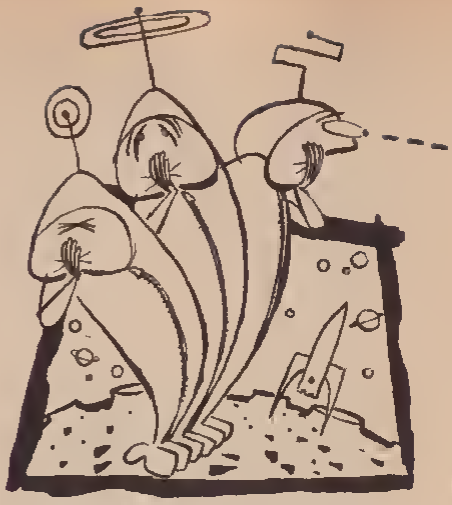
***Tirudner Syndrome**: thallophytic infection of the skin characterized by concurrent rashes, blisters, lesions, devil's pinches (purpura simplex), crusting, scaling and oozing.*

ETIOLOGY: Responding to the needs of their Acropaani host, parasitic algae produce antigenic substances. These antigens cause various types of eruptions to appear on the sensitized skin of the host.

Symptoms and Signs: The eruptions appear suddenly, coinciding with meeting a stranger.

Diagnosis and Prognosis: The multiple symptoms, together with their instantaneous development, make the Tirudner syndrome easily distinguishable from other skin infections. The prognosis is excellent when there is understanding on the part of the observer.

Treatment: The physician



must not allow the symptoms to paralyze him. Viewing the patient with philosophic detachment, he must use cool kindness and frank friendliness to reassure the patient. This was the example Dr. Ernest L. Tirudner (3021-3150) set when he met an Acropaani.

It happened in 3102, on the First Solar Expedition to Murzim VI. Dr. Tirudner was in the landing party when they encountered an Acropaani at the outskirts of a town.

Upon seeing the strangers, the humanoid Acropaani's short fine hair encrusted with purple algae became almost invisible beneath a horrifying assortment of sores that blossomed before their eyes. Only strong indoctrination in contact methodology prevented the men from fleeing in fear or blasting the Acropaani down.

DR. Tirudner ordered the crewman carrying the force-projector to throw up a protective screen, but it was too late. All of the men began itching unbearably. Several threw up. Dr. Tirudner ignored his own discomfort to examine the others.

Finding nothing somatically wrong with any of the party, he decided that the itching and vomiting were subjective responses to the symptomatic appearance of the Acropaani. He quickly administered a hypnotic booster of contact methodology. The itching and vomiting stopped.

Dr. Tirudner ordered the party to return to the spaceship. He himself moved to a safe distance from the Acropaani and lowered the protective screen. Using remote controls he ran out the servo-mechanical diagnoser.

The Acropaani didn't budge, but submitted to a thorough job of diagnosis.

Dr. Tirudner could recognize, from where he stood, the symptoms of measles, chickenpox, smallpox, mumps, scarlet fever, cellulitis, lymphadenitis, typhoid fever, cutaneous anthrax, bubonic plague, tularemia, tsutsugamushi disease, cutaneous leishmaniasis, leprosy, yaws, coccidioidomycosis, chromoblastomycosis, rhinosporidiosis.

But through the diagnoser he ruled out all those diseases. He found there was no basis for suspecting bacteria or viruses or fungi. He discovered the presence of the algae, and realized that the disorder was totally innocuous—that the syndrome was a protective device: The Acropaani was attempting to keep strangers from the town by displaying symptoms of most of the infectious diseases Dr. Tirudner had heard of. It was a scatter technique: one of the symptoms must suggest a disease that a stranger feared.

It was analogous to the way the quadruple-jointed kresar of Rigel IX simulates liquescence and flows away from its nesting place to divert intruders from its young, and to the way the mineral metabolizers of Denebola VI become radioactive to render themselves unappetizing to creatures of prey.

Dr. Tirudner convinced the Acropaani that the Solarians wished to be friends. The symptoms vanished when Dr. Tirudner doled out a placebo to the Acropaani and treated him to a creaky display of witch-doctor dancing as a face-saving expedient for the patient's ego.

Periodic Deluminescence: *a condition characterized by intermittent inability to light up.*

ETIOLOGY: Periodic deluminescence is a form of conversion hysteria. The cause is a psychic disturbance. By its very nature, the condition is peculiar to the Ahimntuy race of humanoids on Fomalhaut III. The skin of an Ahimntuy has six different kinds of pigment cells.

There are strawberry, raspberry, cherry, orange, lemon, and lime colors.

The pigment cells have muscular walls that contract and expand. This shrinking and swelling enables the skin to take on a large variety of hues, tints, and shades, which are the Ahimntuy's means of communicating. The pigments are bioluminescent, so darkness does not bar conversation.

The phenomenon of periodic deluminescence began in antiquity.

A possible legendary wandering revivalist, an Ahimntuy by the name of Sesamhi, had appeared in the city of Ehlmos. It was the time of the Festival of the East Wind, and pilgrims thronged the streets. Sesamhi chose a busy crossroad and began to preach.

The officer on the beat saw that the revivalist was blocking traffic, and flashed a loud plaid order to move on.

But Sesamhi stood still, smiling sadly at the officer. The officer clashed his colors in rage. He broke through the crowd and grabbed Sesamhi.

Sesamhi answered the officer's wrath softly, in pastels. Disregarding Sesamhi's remarks, the officer dragged him before the magistrates of Ehlmos.

The magistrates asked Sesamhi his name. His pigment cells remained inert. They asked again. He gave no response beyond the

pale smile. The inquisitors thought there was something fishy (apologies to ichthyoids) about his failure to respond, seeing his recalcitrant behavior as a threat to the whole structure of government.

So they resorted to more forcible means of cross-questioning. While they tortured him they mocked him, dyeing parts of his

body in foul groupings of assorted colors.

Sesamhi's heart gave out. At this crucial moment he flashed weakly what he had tried to tell the arresting officer—that he was color blind. Long fasting had caused a vitamin deficiency that atrophied his fovea.

But because they had not known, he forgave them. Then he died.

Sheepishly, they dumped his pastel body in an abandoned quarry.

BUT that was not the last of Sesamhi. Ahimntuy whispered to Ahimntuy in subdued colors, and what they whispered was that Sesamhi had not really died—that a faithful follower had seen life in the body and had spirited him from Fomalhaut III to another world.

As the story grew it gathered momentum and became an irresistible force, rainbow-shouted. The following year, at the time of the Festival of the East Wind, the first cases of periodic deluminescence appeared. Since then, yearly attacks of periodic deluminescence have become an almost universal phenomenon on Fomalhaut III.

Psychoanalysts theorize that it arises from unconscious conflict, which comes about when the Festival of the East Wind sharply reminds the Ahimntuy of Sesamhi. The Ahimntuy projects himself into Sesamhi's place and suffers the same frustration. And periodic deluminescence defends the ego from recognizing the infantile wishes, hostilities, and guilt feelings that are reawakened.

Symptoms and Signs: Rising body temperature; inability to luminesce when conversing in darkness.

Diagnosis and Prognosis: Periodic deluminescence is easy to differentiate from organic disorders, malingering, and schizophrenia. Body temperature soars, though not high enough to affect the enzyme which catalyzes bioluminescence. Bioluminescence would therefore still be under nervous control; this indicates that the breakdown is due to hysteria. The onset of the symptoms at the time of the Festival of the East Wind is highly significant. The attack lasts three days, clearing up afterward of its own accord.

Treatment: The patient should rest his pigment cells and meditate rather than try to talk in darkness.

***Larritonia Fever:** an acute disease of the central nervous system characterized by involuntary clapping.*

ETIOLOGY: Direct contact is the source of infection. Healthy carriers are often the cause of outbreaks. The larritonia virus enters the body through a break in the skin, invades the blood stream by way of the lymphatic channels, and attacks the brain, cord, and peripheral nerves by causing thiamine deficiency.

Symptoms and Signs: As degeneration progresses, the patient increasingly demonstrates irrational thought, marked impairment of perception and loss of muscular control. The last evidences itself in seeing double. The patient reaches out confusedly, seeking to press into register the external objects which he sees as double images. To observers, this appears to be a clapping gesture.

Diagnosis and Prognosis: The peculiar clapping gesture differentiates larritonia fever from all other diseases of the central nervous system. The condition is slowly progressive but is compatible with long life. Incapacitation is gradual and increasing.

Prevention: Identification and isolation of carriers are essential.

Treatment: Thiamine, 20 to 50 mg. or more, according to metabolic rate and physiological type, intramuscularly or intravenously daily. Lheet, 3,000 cc. daily. CAUTION: On Cottenda XII, special care is necessary when administering lheet. Cottendans are marsupialoids with a pouch high on the back. This pouch holds a plant and a solution of nutrient salts. The plant grows with its roots dipped in the solution. In return for the nutrient salts, the plant disposes of excess carbon dioxide and provides leafy shade. Lheet upsets the symbiotic balance by draining the solution. This withers the plant and asphyxiates the Cottendan.

MOST Cottendans have a tremendous craving for lheet, however. Too often in their history this craving has mastered their judgment. After a lheet orgy in 2610 threatened to wipe out the race, the surviving Cotten-

dans banned the use of lheet except for medicinal purposes.

In 3090 a new outbreak of larritonia fever began to sweep around the planet. Dr. Grevan Tisoti (3051-3126), a Terran exchange doctor, soon pinpointed the source of infection. It was a larritonia - carrying individual peddling his infectious touch.

Lheet-craving Cottendans willing to pay the price in credits and health were buying the disease to get the cure!

Dr. Tisoti rushed to alert the civil authorities. They greeted him with applause. He told them of his discovery and gave them his advice. They applauded, and asked him to repeat his words. He repeated them over and over, each time to wilder applause. Then they asked him to submit his findings in writing—in Cottendan hieroglyphs.

Dr. Tisoti realized the cost of delay. He also realized that the official bodies were suffering from larritonia fever, and that he could expect no cooperation.

Without wasting further time and breath, he returned to his lab. There he prepared a large amount of a soporific. He loaded it on his copter and flew to the government warehouse containing all the lheet on Cottenda. He overpowered the guards (Cottendans are two feet high), entered the building and adulterated the lheet with soporific.

When word spread that patients were sleeping through their doses of lheet instead of enjoying the effect, the outbreak of larritonia fever ended quickly. And just as quickly Dr. Tisoti found himself on a Terra-bound spaceship, the irritated authorities of Cottenda having invoked the law which forbade the distribution of sleeping-medicine without prescriptions.

Incomplete Plasticizing: *a malfunction of body covering, characterized by fluid condition of new-forming skin.*

E*TIOLOGY*: This disorder affects the natives of Affhiltu IX, a treeless, grassy, muggy and very small planet. Faithfully, every three of their years, the igneous rock underlying the crust of their planet had superheated the ground water into steam, activating a belt of geysers. The body chemistry of the natives had adapted to the cycle. Every three years their thermoplastic skin was ready to shed. Their body exuded a colloidal liquid which was the basis of their new skin. With perfect timing the geysers jetted steam. The natives paraded through the steam and the colloidal coating coagulated, form-

ing a gel. This gave them a spanking new weatherproof, waterproof skin.

But in 3030 the cycle broke down. The belt of geysers encircling the globe failed to spout on schedule. The natives tried to keep their old skin from sloughing off, but soon found that patching up was a losing struggle. They begged their gods for help.

A crippled Terran spaceship made a landing, its crew hoping to find materials for the repairs the ship needed.

The natives rejoiced, believing that the spacemen were heavenly messengers. The natives had prayed to their gods, and now everything would be made right again.

The heavenly messengers tried to keep from looking dismayed. They were willing to help, if they could, in return for the materials they needed. But they lacked facilities for processing ten billion beings. Yet if they failed to solve the problem, they would be revealed as false gods, and would find the natives raging against them. Then they might not get what they needed, or live to use it if they got it.

Symptoms and Signs: The patient exhibits a reticulating outer skin that floats uneasily over the unplasticized inner skin.

Diagnosis and Prognosis: The reticulating and sliding of outer skin simplify diagnosis. Incomplete plasticizing responds readily to proper treatment.

Treatment: Dr. Mike Nagel (2996-3098) was the surgeon of the Terran spaceship. He picked a random sampling of natives for studying. He tested them and found that their body temperature was much higher than the Terrans', and that they were allergic to certain Terran substances.

DR. Nagel sweated to find the solution. But he didn't know he had come up with it until a native, in a frenzy of devotion, pressed lips to the doctor's palm. The heavenly messenger looked on bug-eyed at what followed.

The native writhed, fainted, and fell to the floor of the sick bay. His outer skin sloughed off.

The new skin began to firm up. Dr. Nagel quickly took the native's temperature. It had risen 25° F. above normal.

The doctor scraped the sweaty palm the native had kissed and analyzed the scrapings. His findings: the sweat had caused the native to run the high fever, the fever heat had caused the colloidal coating to coagulate.

Meanwhile the native came to, got up, saw his new skin, danced out. Dr. Nagel knew he would spread the news, and got busy. The crew turned a compartment into a turkish bath. At the end of three months they had collected enough sweat for global distribution.

The grateful natives heaped upon the spacemen the materials they needed, many times over. Soon the spaceship was in shape to go.

The shock of its take-off jolted every geyser on the tiny planet into action.

The natives stretched their new skins in frantic dance at this parting gift.

Infectious Keratolysis: *a communicable disease characterized by a moth-eaten appearance.*

ETIOLOGY: Salicylic acid-forming bacilli cause infectious keratolysis. The acid attacks the carapace of chelonoids, the cell walls of fungoids, the hair and nails of humanoids.

Symptoms and Signs: The onset is insidious, the typical moth-eaten appearance becoming evident only in the latter stages of the disease.

Diagnosis and Prognosis: A moth-eaten appearance may be misleading without the supporting evidence of the salicylic acid and the bacilli. The classical example is the mistaken diagnosis of Dr. O. Redmeld (3616-3666).

Dr. Redmeld was a Ganymedan medical missionary to Ganap III. He found it a paradise of untouched splendor. The dominant form of life was a primitive society of beautiful winged creatures who spent their days flourishing their bright colors in the

gold-moted air. Dr. Redmeld arrived at a Ganap settlement in 3640. The Ganapi smilingly welcomed him, then continued weaving their kaleidoscopic patterns in the sky.

Determining to get the lie of the land, Redmeld boldly struck into the surrounding forest. Before he had gone very far, a loud crashing stopped him. The cause of the noise followed it shortly.

The creature was vegetarian, but the doctor didn't know that at the time. He saw the long armored hody, the huge jaws, the waving antennae, the three pairs of propelling legs, the several pairs of prolegs armed with hooks —and he drew his gun and fired.

The creature heaved a hit, then lay still. The shot had split off a section of armor. Dr. Redmeld could see that something had been eating away at the inner surfaee of the armor. Its moth-eaten appearance immediately suggested infectious keratolysis to him. Without analyzing the fluid that saturated the inner portion of the armor, he felt sure that it was salicylic acid, teeming with hacilli.

THE thought of disease in this paradise appalled him. Another loud crashing hroke through this thougbt. Another huge creature appeared. Seeing its dead fellow, it threw itself across the hody and clicked its enormous jaws in mourning. Redmeld shivered and fired again.

This creature's armor showed the menacing moth-eaten appearance too.

Burning with zeal, Redmeld pushed through the forest. Single-handedly he would root out the evil! He gripped his gun tightly, alert for his next encounter.

But the next encounter took him hy surprise.

Three of the beautiful winged Ganapi came silently down and seized him. They flew him to a clearing where their tribunal sat in judgment.

It was at his trial that he learned that the creatures he had killed were not carriers of infectious keratolysis. The moth-eaten appearance was due to molting fluid that had heen busily digesting the chitin of the giant larvae, enahling the imago—the winged creature—to hreak out.

The tribunal ruled that Redmeld might remain on Ganap III only if he agreed to limit his work to doctoring the superficial euts and bruises of infant larvae. This he did.

Prognosis is good; the mortality in infectious keratolysis is less than 1%.

Treatment: The physician must first draw off the salicylic acid and neutralize affected areas with an alkaline solution. Then

he should administer an antibiotic. Ballpointin has been responsible for dramatic improvement. The initial basic dosage is 4 grams daily, with decreasing doses as improvement becomes manifest. Some authorities recommend using lobdomycetin as a prophylactic against secondary invaders. The basic dosage is 300,000 units given intravenously daily.

Cosmetic or structural considerations may call for the use of plastic spray to fill in and smooth over the ravaged areas. As to color, the plastic spray may be in matching or contrasting hues. Many patients prefer the latter: a striking polka-dot "scar" provides a gambit for wedging one's operation into a conversation.

—EDWARD WELLEN

Forecast

Fram the sparkling, immeasurably beautiful and efficient city af the future, on apprehensive hero goes forth to sell civilization ta tha hostile countryside. He is not o coword. Any man hos o right to feel the touch of feor whan he is given o suicidal assignment. For the cities vitally need the cauntryside . . . ond the countryside has blackaded the cities for mony bitterly ontogonistic years. Nar is it o motter of cutting off noses to spite foces, os the hero incredulously finds out in next month's novello, NATURAL STATE, by Domon Knight. If you forget this ocid-sharp obelisk of literory ingenuity in less thon holf o dozan years, your memory needs honing. But you won't forget it!

Winstan Marks' navelet, BACKLASH, is named after the infuriating tangle thot o fishing lina gets inta when it spins back on the reel. It's o fishing expedition he writes obout, in o woy, but there's no doubt thot it leoves monkind reeling!

What with NATURAL STATE running long (ond reoding short), this looks like o pocked issue, but we'll try to add another novelet—LULUNGOMEENA by Gordon R. Dickson. Don't let the exotic title misleod you. This for-distont stotion out in space is no home owoy from home! On the other hond, "home" hos o lot to do with the odrenol-tense conflict ond the explosive ending.

Conclusion of a 3-part serial

The caves of steel

SYNOPSIS

The colonization of the Galaxy has come to a halt. Earth's eight billions live in huge enclosed Cities, in a culture so specialized and artificial that they can no longer break loose to establish colonies on new raw worlds. On the other hand, the fifty "Outer Worlds"—(Galactic colonies established centuries earlier by an Earth that had not yet hardened entirely into its mold)—had developed into underpopulated societies of long-lived humans who made extensive use of robots in their economy.

To restore humanity to a policy of expansion and growth, a

Illustrated by EMSH

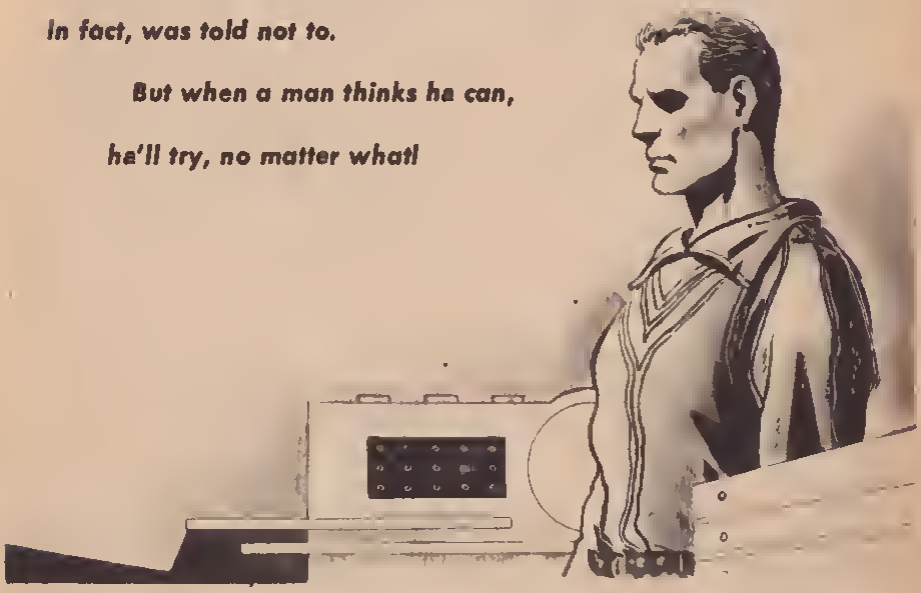
By ISAAC ASIMOV

Baley no longer had to save Earth . . .

In fact, was told not to.

But when a man thinks he can,

he'll try, no matter what!



small group of idealistic "Spacers" — (men of the Outer Worlds)—have established a mission in "Spacetown" just outside New York City and are attempting to introduce robots into Earth's Cities. In doing so, they hope to create a class of jobless men who will be willing to leave Earth for other planets.

This plan is not working. What is actually happening is that Earthmen are forming Medievalist organizations, groups dedicated to an anti-robot, anti-Spacer philosophy and to the belief that Earth's salvation is to be found in her primitive pre-City way of life. The philosophy is an attractive one. Even Julius Enderby,

New York City's Commissioner of Police, wears old-fashioned spectacles and has a genuine window in his private office.

The conflict between Earthmen and Spacers is brought to a head by the murder of Dr. Roj Nemmenuh Sarton, a prominent Spacer, presumably by a Medievalist.

Plainclothesman Elijah Baley is in charge of the investigation and is forced to take a Spacer partner named R. Daneel Olivaw, the R. standing for robot. So well designed is R. Daneel, however, that it is almost impossible to discover he is not human.

Commissioner Enderby impresses upon Baley the fact that failure to solve the crime may not only result in an interstellar crisis, but may have the more immediate effect of hastening the gradual replacement of the human members of the Police Department by appropriats robots. Already, simple robots such as R. Sammy are serving as office boys.

This would mean "declassification" for men like Baley. Declassification involves the loss of all special privileges above that of bare existence. Balsy fears such a situation desperately since his father was declassified in Balay's infancy with tragic results for the entirs family.

Baley takes R. Daneel to his apartment and on the way the robot, by quick action, prevents an anti-robot riot at a shoe store. Baley's wife, Jessie—(her full name is Jezebel, but after a quarrel with her husband over the personality and character of the Biblical Jezebel, she no longer uses it)—lsarns of R. Daneel's robotic nature through some unspecified outside source. Jessie urges Baley to drop the case, even to resign from tha Department if he has to.

Instead, Baley travels to Spacetown and there accuses the Spacers of having set up a false crime for their own devious motives. Hs accuses them of having presented Polica Commissioner Enderby, who happened to be in Spacetown at about the time of the crime, with a "corpse" that was actually the remains of a humanoid robot. Meanwhila, ha claims, the real Dr. Sarton, tha supposed murdered man, masqueraded about as the "robot," R. Daneel Olivaw.

This theory is disproved by R. Daneel himself, who can open parts of his body to show his mechanical interior. Baley is forced to seek another solution.

Later in the day, he and R. Daneel are pursued by a group of Medievalist zealots, whom they escape by making use of Naw York's rapid transit system and by passing through one of the nuclear power plants of the City.

In a last attempt to show that Earthmen were not involved in the murder, Baley consults Dr. Gerrigel, a roboticist, to see whether R. Daneel might be a robot designed without the First Law of Robotics—which states that a robot cannot hurt a human being. It is his theory that perhaps R. Daneel himself killed Dr. Sarton and hid the missing murder weapon in the only place no one had looked, i.e. in the interior of the robot's own body. Dr. Gerrigel assures Baley this is impossible.

In the privacy of the Commissioner's office—Enderby himself being away at the time—R. Daneel then turns the tables by inquiring into the activity of Baley's wife, Jessie. How did Jessie learn that R. Daneel is a robot? He accuses her of being a member of an underground Medievalist organization. Baley fights this bitterly since, if it were true, it could mean declassification for both of them. Even as he does so, R. Sammy, the robot office boy, announces that Jessie, in a great state of agitation, wishes to see her husband.

XIV

BALEY remained standing, in a tetany of shock, as Jessie ran to him, seized his shoulders, huddled close.

His pale lips formed the word, "Bentley?"

She looked at him and shook her head. "He's all right."

"Well, then?"

Jessie said through a sudden torrent of sobs, in a low voice that could scarcely be made out, "I can't go on, Lije. I can't sleep or eat. I've *got* to tell you!"

"Don't say anything," Baley said in anguish. "For God's sake, Jessie, not now!"

"I must. I've done a terrible thing—"

Baley said hopelessly, "We're not alone, Jessie."

She looked up and stared at R. Daneel with no sign of recognition. The tears in which her eyes were swimming were evidently refracting the robot into a featureless blur.

R. Daneel said, "Good afternoon, Jessie."

She gasped. "Is it the — the robot?" She dashed the back of her hand across her eyes and stepped out of Baley's encircling right arm. She breathed deeply and, for a moment, a tremulous smile wavered on her lips. "It *is* you, isn't it?"

"Yes, Jessie."

"You don't mind being called a robot. "

"No, Jessie. That is what I am."

"And I don't mind being called a fool and an idiot and a—a sub-

versive agent, because that's what *I* am."

"*Jessie!*" groaned Baley.

"It's no use, Lije," she said. "He might as well know—he's your partner. I don't care if I go to jail. I don't care if they send me down to the lowest levels and make me live on raw yeast and water. I don't care if—You won't let them, will you, Lije? Don't let them do anything to me! I'm frightened!"

Baley patted her shoulder and let her cry. He said to R. Daneel. "She isn't well. We can't keep her here. What time is it?"

R. Daneel replied without visibly consulting a timepiece, "Fourteen-forty-five."

"The Commissioner may be back any minute. We'd better commandeer a squad-car. We can talk this over in the Motorway."

Jessie's head jerked upright. "The Motorway? Oh, no, Lije."

He said, in as soothing a tone as he could manage, "Now, Jessie, don't be superstitious. You can't go on the Expressway the way you are. Be a good girl and calm down or we won't even be able to go through the office."

SHE wiped her face with a damp handkerchief and said drearily, "Oh, look at my make-up."

"Don't worry about your makeup," said Baley. "Daneel, what about the squad-car?"

"It's waiting for us now, partner Elijah."

"Come on, Jessie."

"Wait—just a minute, Lije. I've got to do something to my face."

"It doesn't matter now."

But she twisted away. "Please! I can't go through the Common Room like this. I won't take a second."

The man and the robot waited—the man impatiently, the robot impassively.

Jessie rummaged through her purse for the necessary equipment. If there was one thing, Baley thought resignedly, that had resisted mechanical improvement since Medieval times, it was a woman's purse. Even the substitution of magnetic clotures for metal clasps had not proven successful. Jessie pulled out a small mirror and the silver-cased cosmeto-kit that Baley had bought her three birthdays before.

The cosmeto-kit had several orifices and she used each in turn. All but the last spray were invisible. She used them with that fineness of touch and delicacy of control that seems to be the birthright of women from Sumerian to Galactic eras.

The base went on first, in a smooth, even layer that removed all shininess and roughness from

the skin and gave it the light golden glow which long experience had taught Jessie was the shade best suited to the natural coloring of her hair and eyes. Then a touch of tan along the forehead and chin — a gentle brush of color on either cheek, tracing back to the angle of the jaw—a delicate drift of blue on the upper eyelids and along the earlobes F nally came the application of smooth carmine to the lips. This involved the one visible spray, a delicate pink mist that glistened liquidly in air, but dried and deepened richly on contact with the lips.

"There," said Jessie, with several swift pats at her hair and a look of deep dissatisfaction. "I suppose that will have to do."

The process bad taken more than the promised second, but less than fifteen. Nevertheless, it had seemed interminable to Baley.

"Come on," he said.

She barely had time to return the cosmeto-kit to the purse before he pushed her through the door.

THE eerie silence of the Motorway lay thick on either side. Baley said, "All right, Jessie. What did you do?"

The impassivity that had masked Jessie's face since they left the Commissioner's office showed signs of cracking. She looked at her husband, then at Daneel in helpless silence.

Baley said, "Get it over with, Jessie—please! Have you committed an actual crime?"

"A crime?" She shook her head uncertainly.

"No hysterics. Just say yes or no, Jessie. Have you—" he hesitated briefly—"killed anyone?"

The look on Jessie's face was promptly changed to indignation. "Why, Lije Baley!"

"Yes or no, Jessie."

"No—of course not."

The bard knot in Baley's stomach softened perceptibly. "Have you stolen anything? Falsified ration data? Assaulted anyone? Destroyed property? Speak up, Jessie."

"I didn't mean anything like that." She looked over her shoulder. "Lije, do we have to stay down here?"

"Until this is over. Now start at the beginning. Wbat did you come to tell us?"

Jessie spoke in a soft voice. "It's these people, these Medievalists. *You* know, Lije—they're always around, always talking. Even in the old days, when I was an assistant dietician, it was like that. Remember Elizabeth Thornbowe? She was a Medievalist. She was always talking about bow all our troubles came from the City and how things

were better before the Cities started.

"I used to asg her how she was so sure, especially after you and I met. Lije—remember the talks we used to have?—and then she'd quote from those small book-reels that are always floating around. You know, like *Shame of the Cities* that the fellow wrote. I don't remember his name."

Baley said absently, "Ogrinsky and Lincoln Steffins. Centuries ago."

"Yes, only most of the book-reels were lots worse. Then, when I married you, she was really sarcastic. She said, 'I suppose you're going to be a real City woman, now that you've married a policeman.' After that, she didn't talk to me much and then I quit the job and that was that. Lots of things she used to say were just to shock me, I think, or to make herself look mysterious and glamorous.

"She was an old maid, you know—never got married till the day she died. Lots of those Medievalists don't fit in, one way or another. Remember you once said, Lije, that people sometimes mistake their own shortcomings for those of society and want to fix the Cities because they don't know how to fix themselves."

Baley remembered and his words now sounded flip and superficial in his own ears. He said gently, "Keep to the point, Jessie."

SHE went on, "Anyway, Lizzy was always talking about how there'd come a day and people had to get together. She said it was all the fault of the Spacers because they wanted to keep Earth weak and decadent. That was one of her favorite words, 'decadent.' She'd look at the menus I'd prepare for the next week and sniff and say, 'Decadent — decadent.' Jane Myers used to imitate her in the cook-room and we'd die laughing.

"She said, Elizabeth did, that someday we were going to break up the Cities and go back to the soil and have an accounting with the Spacers, who were trying to tie us forever to the Cities by forcing robots on us. Only she never called them robots. She used to say 'soulless monster-machines'—if you'll excuse the expression, Daneel."

The robot said, "I am not aware of the significance of the adjective used, Jessie, but in any case I am not offended. Please go on."

Baley stirred restlessly. It was that way with Jessie. No emergency, no crisis, could make her tell a story in any but her own circuitous way.

She said, "Elizabeth always

tried to talk as though there were lots of people in it with her. She'd say, 'At the last meeting,' and then stop and look at me, sort of half-proud and half-scared, as though she wanted me to ask about it so she could look important, yet scared I might get her in trouble. Of course, I never asked her. I wouldn't give her the satisfaction. Anyway, after I married you, Lije, it was all over until . . ."

Sbe stopped.

"Go on, Jessie," said Baley.

"You remember that argument we had? About Jezebel, I mean?"

It took a second or two for Baley to recall that was Jessie's own name and not a reference to another woman.

He turned to R. Daneel in an automatically defensive explanation. "Jessie's full name is Jezebel. She is not fond of it and doesn't use it."

R. Daneel nodded gravely and Baley thought: Jehosophat, why waste an explanation on *him?*

"It bothered me a lot, Lije," Jessie said. "It really did. I guess it was silly, but I kept thinking and thinking about wbat you said. I mean about your saying that Jezebel was only a conservative who fought for the customs of her ancestors against the strange ones the newcomers had brought. After all, *I* was Jezebel and I always. . ."

She groped for a word and Baley supplied it. "Identified yourself?"

JESSIE shook her head and looked away. "Not really, of course — not literally — not the way I thought she was. I wasn't like that."

"I know, Jessie. Don't be foolish."

"But still I thought of her a lot and somehow I got to thinking that it's just the same now as it was then. I mean we Earth people had our old ways and here were the Spacers coming in with a lot of new ways and trying to encourage the new ways we had stumbled into ourselves, and maybe the Medievalists were right. Maybe we *should* go back to our good old ways. So I went and found Elizabeth."

"Yes. Go on."

"She said she didn't know what I was talking about, and besides I was a cop's wife. I said that had nothing to do with it and finally she said, well, she'd speak to somebody and then, about a month later, she came to me and said it was all right and I joined and I've been going to meetings ever since."

Baley looked at her sadly. "And you never told me?"

Jessie's voice trembled. "I'm sorry, Lije."

"Well, that won't help—being

sorry, I mean. I want to know about the meetings. In the first place, where were these klatsches held?"

A sense of detachment was creeping over him, a numbing of emotions. What he had tried not to believe was so, unmistakably so. In a sense, it was a relief to know the truth, to have the uncertainty over.

She said, "Down here."

"Down here? You mean on this spot?"

"Right in the Motorway. That's why I didn't want to come down here. It was a wonderful place to meet, though. We'd get together—"

"How many?"

"I'm not sure. Maybe sixty or seventy. It was just a sort of local branch. There'd be folding chairs and some refreshments and someone would make a speech. They were mostly about how wonderful life was in the old days and how someday we'd do away with the monsters—the robots, that is—and the Spacers, too. The speeches were sort of dull, really, because they were all the same. We just endured them. Mostly it was the fun of getting together and feeling important. We would pledge ourselves to oaths and there'd be secret ways we could greet each other on the outside."

"Weren't you ever interrupted? No squad-cars or fire-engines passed?"

"No—never."

R. DANEEL interrupted, "Is that unusual, Elijah?"

"Maybe not," Baley answered thoughtfully. "There are some side-passages that are practically never used. It's quite a trick, knowing which they are, though. Is that all you did at the meetings, Jessie—make speeches and play at conspiracy?"

"It's about all. We'd sing songs, sometimes. And, of course, we had refreshments. Nothing fancy—just sandwiches and juice."

"In that case," he said almost brutally, "what's bothering you?"

Jessie winced. "You're angry."

"Please!" said Baley, with iron patience. "Answer my question. If it's as harmless as that, why have you been in such a panic for the last day and a half?"

"I thought they would hurt you, Lije. For heaven's sake, why do you act as though you don't understand? I've explained it to you."

"No, you haven't—not yet. You've told me about a harmless little kaffee-klatsch you belonged to. Did they ever hold open demonstrations? Did they ever destroy robots — start riots — kill people?"

"*Never!* Lije, I wouldn't do any of those things. I wouldn't stay

a member if they tried it."

"Well, then, why do you say you've done a terrible thing? Why do you expect to be sent to jail?"

"They used to talk about someday when they'd put pressure on the government. We were supposed to get organized and then afterward there would be strikes and work stoppages. We could force the government to ban all robots and make the Spacers go back where they came from. I thought it was just talk and then this thing started—about you and Daneel, I mean.

"Then they said, 'Now we'll see action,' and, 'We're going to make an example of them and put a stop to the robot invasion right now.' Right there in Personal, they said it, not knowing it was you they were talking about. But *I* knew—right away."

Her voice broke.

Baley softened. "Come on, Jessie. It was just talk. You can see for yourself that nothing has happened."

"I was so—so scared. And I thought, *I'm part of it*. If there was going to be killing and destruction, *you* might be killed, and Bentley, and somehow it would be all—my fault for taking part in it, and I ought to be sent to jail."

Baley let her sob herself out. He put his arm about her shoulder and stared tight-lipped at R. Daneel, who gazed calmly back.

He said, "Who was the head of your group?"

SHE was quieter now, patting the corners of her eyes with a handkerchief. "A man called Joseph Klemin was the leader, but he wasn't really anybody. He wasn't more than five feet four inches tall and I think he was terribly henpecked at home. I don't think there's any harm in him. You aren't going to arrest him, are you, Lije—not on my say-so?" She looked guiltily troubled.

"I'm not arresting anyone just yet. How did Klemin get *his* instructions?"

"I don't know."

"Did any strangers come to the meetings? You know what I mean — big shots from Central Headquarters?"

"Sometimes people would come to make speeches. That wasn't very often—maybe twice a year or so."

"Can you name them?"

"No. They were always just introduced as 'one of us' or 'a friend from Jackson Heights' or wherever."

"I see. Daneel!"

"Yes, Elijah."

"Describe the men you think you've tabbed. We'll see if Jessie can recognize them."

R, Daneel went through the

list with clinical exactness. Jessie listened with an expression of dismay. As the categories of physical measurements lengthened, she shook her head with increasing firmness.

"It's no use, no use at all," she cried. "How can I remember how any of them looked? I can't . . ." She stopped and seemed to consider. "Did you say one of them was a yeast farmer?"

"Francis Clousarr," said R. Daneel, "is an employee at New York Yeast."

"Well, once a man was making a speech and I happened to be sitting in the first row and I kept getting a whiff—just a whiff really—of raw yeast. You know what I mean. The only reason I remember is that I had an upset stomach that day and the smell kept making me sick. I had to stand up and move to the back and of course I couldn't explain what was wrong. It was so embarrassing. Maybe that's the man you're speaking of. After all, when you work with yeast all the time, the odor gets to stick to your clothes."

"You don't remember what he looked like?" asked Baley.

"No," she replied with decision.

"All right, then. Look, Jessie, I'm going to take you to your mother's. Bentley will stay with you and none of you will leave the Section. Ben can stay home from school and I'll arrange to have meals sent in and the corridors around the apartment watched by the police."

"What about you?" quavered Jessie.

"I'll be in no danger."

"But how long will we have to stay?"

"I don't know. Maybe just a day or two." The words sounded hollow even to himself.

THEY were back in the Motorway, Baley and R. Daneel—alone now. Baley's expression was dark.

"It looks to me," he said, "as if we're up against an organization built up on two levels. First, a ground level with no specific program, designed only to supply mass support for an eventual coup. Secondly, a much smaller elite dedicated to a well-planned program of action. It is this elite we must find. The comic-opera groups Jessie spoke of can be ignored."

"All this," said R. Daneel, "follows if we can take Jessie's story at face value."

"I think we can," Baley said stiffly.

"So it would seem," said R. Daneel. "There is nothing about her cerebro-impulses that would indicate a pathological addiction to lying."

Baley turned an offended look

upon the robot. "I should say not! And there will be no necessity to mention her name in our reports. Do you understand that?"

"If you wish it so, partner Elijah," said R. Daneel calmly, "but our report will then be neither complete nor accurate."

Baley said, "Maybe not, but no real harm will be done. She came to us with whatever information she had and mentioning her name will only put her in the police records. I don't want that to happen."

"In that case, certainly not—provided we are certain nothing more remains to be found out."

"Nothing as far as she's concerned. My guarantee."

"Could you then explain why the word Jezebel, the mere sound of a name, should lead her to abandon previous convictions and assume a new set? The motivation seems obscure."

They were traveling slowly through the curving empty tunnel.

Baley said, "Jezebel is a rare name. It once belonged to a woman of very bad reputation. My wife treasured that fact. It gave her a vicarious feeling of wickedness and compensated for a completely proper life."

"Why should a law-abiding woman wish to feel wicked?"

Baley almost smiled. "Because she *is* law-abiding. Anyway, I did a very foolish thing. In a moment of irritation, I insisted that the historic Jezebel was in reality a good wife. I've regretted explaining that ever since. It made Jessie bitterly unhappy. I had spoiled something for her that couldn't be replaced. I imagine she wished to punish me by engaging in activity she knew I wouldn't approve of. I would say the wish was not a conscious one."

"Can a wish be anything but conscious? Is that not a contradiction in terms?"

BALEY stared at R. Daneel and despaired at attempting to explain the unconscious mind. He said instead, "Besides that, the Bible has a great influence on human thought and emotion."

"What is the Bible?"

For a moment Baley was surprised, and then was surprised at himself for being surprised. The Spacers, he knew, lived under a thoroughly mechanistic personal philosophy. R. Daneel could know only what the Spacers knew and no more.

He said curtly, "It is the sacred book of about half of Earth's population."

"I do not grasp the meaning of the adjective."

"I mean that it is highly regarded. Various portions of it, when properly interpreted, con-

tain a code of behavior which many men consider best suited to the ultimate happiness of mankind."

R. Daneel seemed to consider that. "Is this code incorporated into your laws?"

"I'm afraid not. The code doesn't lend itself to legal enforcement. It must be obeyed by each individual out of a desire to do so. It is, in a sense, higher than any law can be."

"Higher than law? Nothing can be!"

Baley smiled wryly. "Shall I quote a portion of the Bible for you?"

"Please do."

Baley let the car slow to a halt and for a few moments sat with his eyes closed, remembering. He would have liked to use the sonorous Middle English of the Medieval Bible — but, to R. Daneel, Middle English would be gibberish.

He began, speaking almost casually, in the words of the Modern Revision, as though he were telling a story of contemporary life instead of dredging a tale out of Man's remote past.

" 'Jesus went to the mount of Olives, and at dawn returned to the temple. All the people came to Him, and He sat down and preached to them. And the scribes and Pharisees brought to Him a woman caught in adultery, and when they had placed her before Him, they said to Him, "Master, this woman was caught in adultery, in the very act. Now Moses, in the law, commanded us to stone such offenders. What do you say?"

" 'They said this, hoping to trap Him, that they might have grounds for accusations against Him. But Jesus stooped down, and with His finger wrote on the ground, as though He had not heard them. But when they continued asking Him, He stood up and said to them, "He that is without sin among you, let him first cast a stone at her."

" 'And again He stooped down and wrote on the ground. And those that heard this, being convicted by their own conscience, went away one by one, beginning with the oldest, down to the last: and Jesus was left alone, with the woman standing before Him. When Jesus stood up and saw no one but the woman, He said to her, "Woman, where are your accusers? Has no one condemned you?"

" 'She said, "No one, Lord."

" 'And Jesus said to her, "Nor do I condemn you. Go, and sin no more." ' "

R. DANEEL listened attentively. He said, "What is adultery?"

"That doesn't matter. It was a

crime for which the accepted punishment was stoning — that is, stones were thrown until the guilty one was killed."

"And the woman was guilty?"

"She was."

"Then why was she not stoned?"

"None of the accusers felt he could after Jesus' statement. The story is meant to show that there is something even higher than the justice which you have been filled with. There is a human impulse known as mercy, a human act known as forgiveness."

"I am not acquainted with those words, partner Elijah."

"I know," muttered Baley. "I know."

He started the squad-car with a jerk and let it tear forward savagely. He was pressed back against the cushions of the seat.

"Where are we going?" asked R. Daneel.

"To Yeast Town," said Baley, "to get the truth out of Francis Clousarr, conspirator."

"You have a method for doing this, Elijah?"

"Not I, exactly. But you have, Daneel—a simple one."

They sped onward.

CHAPTER XV

BALEY could feel the vague aroma of Yeast Town growing stronger. He did not find it as unpleasant as some did—Jessie, for instance. Actually, he rather liked it. It had pleasant connotations.

Every time he smelled raw yeast, the alchemy of sense-perception carried him more than three decades into the past. He was a ten-year-old again, visiting his uncle Boris, who was a yeast farmer. Uncle Boris always had a little supply of yeast-delectables — small cookies. chocolaty things filled with sweet liquid, hard confections in the shape of cats and dogs. Young as he was, he knew that uncle Boris shouldn't really have had them to give away and he always ate them very quietly, sitting in a corner with bis back to the center of the room. He would eat them quickly for fear of being caught.

They tasted all the better for that.

Poor uncle Boris! He had had an accident and died. They had never told him exactly how, and be bad cried bitterly, because he thought uncle Boris had been arrested for smuggling yeast out of the plant. He expected to be arrested and executed himself. Years later, he had poked carefully through police files and learned the truth. Uncle Boris had fallen beneath the treads of a transport. It was a disillusioning ending to a romantic myth.

Yet the myth would always

arise in his mind, at least momentarily, whenever his nostrils caught a whiff of raw yeast.

Yeast Town was not the official name of any part of New York City. It could be found in no gazetteer and on no official map. What was called Yeast Town in popular speech was, to the Post Office, merely the boroughs of Newark, New Brunswick and Trenton. It was a broad strip across what had once been Medieval New Jersey, dotted with residential areas, particularly in Newark Center and Trenton Center, but given over mostly to the many-layered farms in which a thousand varieties of yeast grew and multiplied.

One-fifth of the City's productive population worked in the yeast farms—another fifth worked in the subsidiary industries. Beginning with the mountains of wood and coarse cellulose that were dragged into the City from the tangled forests of the Alleghenies—through the vats of acid that hydrolized it to glucose—the carloads of niter and phosphate rock that were the most important additives—down to the jars of organics supplied by the chemical laboratories—it all came to only one thing: yeast and more yeast.

Without yeast, six of Earth's eight billions would starve in a year.

Baley felt cold at the thought. Three days before, the possibility had existed as deeply as it did now. But, three days before, it would never have occurred to him.

THEY whizzed out of the Motorway through an exit on the Newark outskirts. The thinly populated avenues, flanked on either side by the featureless blocks that were the farms, offered little to check their speed.

"What time is it, Daneel?" asked Baley.

"Sixteen-oh-five," replied R. Daneel.

"Then he'll be at work, if he's on day-shift."

Baley parked the squad-car in a delivery recess and froze the controls.

"This is New York Yeast, Elijah?" asked the robot.

"Part of it," said Baley.

They entered a corridor flanked by a double row of offices. A receptionist at a bend in the corridor gave them an automatic smile. "Whom do you wish to see?"

Baley opened his wallet. "Police. Is there a Francis Clousarr working for New York Yeast?"

The girl looked perturbed. "I can check."

She connected her switchboard through a line plainly marked *Personnel* and her lips moved

slightly, though no sound could be heard.

Baley was no stranger to the throat-phones that translated the sub-vocalization of the larynx into words. He said, "Speak up, please. Let me hear you."

Her words became audible, but consisted only of, ". . . he says he'a a policeman, sir."

A dark, well-dressed man came out through a door. He had a thin mustache and his hairline was beginning to retreat. He smiled mirthlessly and said, "I'm Prescott of Personnel. What's the trouble, Officer?"

Baley stared at him coldly and Prescott's smile grew strained. He added, "I just don't want to upset the workers. They're touchy about the police."

Baley said, "Tough, isn't it? Is Clousarr in the building now?"

"Yes, Officer."

"Let's have a rod then. If he's gone when we get there, I'll be speaking to you again."

The other's smile was quite dead. He muttered, "I'll get you a rod, Officer."

THE guide-rod was set for Department CG, Section 2. What that meant in factory terminology, Baley didn't know. He didn't have to. The rod was an inconspicuous thing which could be palmed in the hand. Its tip warmed gently when lined up in the direction for which it was set, cooled quickly when turned away. The warmth increased as the final goal was approached.

To an amateur, the guide-rod was almost useless, with its quick little differences of heat content. But few City-dwellers were amateurs at this particular game. One of the most popular and perennial of the games of childhood was hide-and-seek through the school-level corridors with the use of toy guide-rods—"*Hot or Not, let Hot-Spot Spot. Hot-Spot Guide-Rods Are Keen.*"

Baley had found his way through hundreds of massive piles by guide-rod, and he could follow the shortest course with one of them in his hand as though it had been mapped out for him.

When he stepped into a large and brilliantly lit room after ten minutes, the guide-rod's tip was almost hot.

Baley said to the worker nearest the door, "Francis Clousarr here?"

The worker jerked his head. Baley walked in the indicated direction. The odor of yeast was sherp, despite the laboring air-pumps whose humming made a steady background noise.

A man had risen at the other end of the room and was taking off an apron. He was of moderate height, his face deeply lined, though he was comparatively

youthful, and his hair just beginning to grizzle. He had large knobby hands, which he wiped slowly on a celltex towel.

"I'm Francis Clousarr," he said.

Baley looked briefly at R. Daneel.

The robot nodded.

"Okay," said Baley. "Anywhere we can talk?"

"Maybe," said Clousarr slowly. "But its just about the end of my shift. How about tomorrow?"

"Lots of hours between now and tomorrow. Let's make it now." Baley opened his wallet and displayed it to the yeast farmer.

But Clousarr's hands did not waver in their somber wiping motions. He said coolly, "I don't know the system in the Police Department, but around here you get tight eating hours with no leeway. I eat at 1700 to 1745 or I don't eat."

"It's all right," said Baley. "I'll arrange to have your supper brought to you."

"Well, well," said Clousarr joylessly. "Just like an aristocrat or a C-class copper. What's next—private bath?"

"You just answer questions, Clousarr," said Baley, "and save your big jokes for your girlfriend. Where can we talk?"

"If you want to talk, how about the balance room? Suit yourself about that. Me, I've got nothing to say—nothing at all."

BALEY thumbed Clousarr into the balance room. It was square and antiseptically white, air-conditioned independently of the larger room—and more efficiently. Its walls were lined with delicate electronic balances, glassed off and manipulated by field-forces only. Baley had used cheaper models in his college days. One make, which he recognized, weighed a mere billion atoms.

Clousarr said, "I don't think anyone will come in here."

Baley grunted, then turned to Daneel and said, "Would you step out and have a meal sent up here? And, if you don't mind, wait outside for it."

He watched R. Daneel leave, then said to Clousarr, "You're a chemist?"

"I'm a zymologist, if you don't mind."

"What's the difference?"

Clousarr looked lofty. "A chemist is a soup-pusher, a stink-operator. A zymologist is a man who helps keep a few billion people alive. I'm a yeast-culture specialist."

"All right," said Baley. "Continue talking."

But Clousarr was not to be diverted. "This laboratory keeps New York Yeast going. There

isn't a day, not one hour, that we haven't got cultures of every strain of yeast in the Company growing in our kettles. We check and adjust the food-factor requirements. We make sure it's breeding true. We twist the genetics, start the new strains and weed them out, sort their properties and mold them again.

"When New Yorkers started getting strawberries out of season a couple of years back, those weren't strawberries, fella. Those were a special high-sugar yeast culture with a true-bred color and just a dash of flavor additive. It was developed right here in this room.

"Twenty years ago, *Saccharomyces olei Benedictae* waa just a scrub strain with a lousy taste of tallow and good for nothing. It still tastes of tallow, but its fat content has been pushed up from fifteen per cent to eighty-seven. If you used the Expressway today, just remember that it's greased strictly with *S. O. Benedictae, Strain AG-7*. Developed right here in this room.

"So don't call me chemist. I'm a zymologist."

Despite himself, Baley was impressed by the fierce pride of the other.

He said abruptly, "Where were you last night between the hours of 18 and 20?"

Clousarr shrugged. "Walking. I like to take a little walk after dinner."

"You visited friends? Or a sub-etheric?"

"No. Just walked."

LIJE Baley's lips tightened. A visit to the sub-etherics would have involved a notch in Clousarr's ration plack. A meeting with a friend would have involved naming a man or woman and offered a cross-check.

"No one saw you then?"

"Maybe someone did. I don't know. Not that I know of, though."

"What about the night before last?"

"Same thing."

"You have no alibi then for either night?"

"If I had done anything criminal, I'd have one. What do I need an alibi for?"

Baley didn't answer. He consulted his little book. "You were up before the magistrate once. Inciting to riot."

"All right. One of the R-things pushed past me and I tripped him up. Is that inciting to riot?"

"The court thought so. You were convicted and fined."

"That ends it, doesn't it? Or do you want to fine me again?"

"Night before last, there was a near-riot at a shoe department in the Bronx. You were seen there."

"By whom?"

Baley said, "It was at mealtime for you here. Did you eat the evening meal night before last?"

Clousarr hesitated, then shook his head. "Upset stomach. Yeast gets you that way sometimes. Even an old-timer like me."

"Last night, there was a near-riot in Williamsburg and you were seen *there*."

"By whom?"

"Do you deny you were present on both occasions?"

"You're not giving me anything to deny. Where did these things happen and who says he saw me?"

Baley stared at the zymologist levelly. "I think you know exactly what I'm talking about. I think you're an important man in an unregistered Medievalist organization."

"I can't stop you from thinking, Officer, but thinking isn't evidence. Maybe you know that." Clousarr was grinning.

"Maybe," said Baley, his long face stony, "I can get a little truth out of you right now."

Baley stepped to the door of the balance room and opened it. He said to R. Daneel, who was waiting stolidly outside, "Has Clousarr's evening meal arrived?"

"It is coming now, Elijah."

"Bring it in, will you, Daneel?"

DANEEL entered a moment later with a compartmented metal tray.

"Put it in front of Mr. Clousarr, Daneel," said Baley. He sat down on one of the stools that lined the balance wall with his legs crossed and one shoe swinging rhythmically. He watched Clousarr edge stiffly away as R. Daneel placed the tray on a stool near the zymologist.

"Francis Clousarr," said Baley, "I want to introduce you to my partner, Daneel Olivaw."

Daneel put out his hand and said, "How do you do, Francis."

Clousarr said nothing. He made no move to grasp Daneel's extended hand. Daneel maintained his position and Clousarr began to redden.

Baley said softly, "You are being rude, Mr. Clousarr. Are you too proud to shake hands with a policeman?"

Clousarr muttered, "If you don't mind, I'm hungry." He unfolded a pocket-fork out of a clasp-knife he took from his pocket and sat down, his eyes on his meal.

Baley said, "Daneel, I think our friend is offended by your official attitude. You are not angry with him, are you?"

"Not at all, Elijah," said R. Daneel.

"Then show that there are no hard feelings. Put your arm

about his shoulder."

"I will be glad to," said R. Daneel. He stepped forward.

Clousarr put down his fork. "What *is* this? What's going on?"

R. Daneel, unruffled, put out his arm.

Clousarr swung back-handed wildly, knocking R. Daneel's arm to one side. "Damn it, don't *touch* me!"

He jumped up and away, the tray of food tipping and hitting the floor in a messy clatter.

Baley, hard-eyed, nodded curtly to R. Daneel, who continued a stolid advance toward the retreating zymologist. Baley stepped in front of the door.

Clousarr yelled, "Keep that thing away from me!"

"That's no way to speak," said Baley with equanimity. "The man's my partner."

"You mean he's a damned robot!"

"All right, let him alone, Daneel," said Baley promptly.

R. Daneel stepped back and stood quietly against the door just behind Baley. Clousarr, panting harshly, his fists clench-

ed, his face white, faced Baley.

Baley said, "All right, smart boy. What makes you think Daneel's a robot?"

"Anyone can tell!"

"We'll leave that to a judge. Meanwhile, we want you at headquarters, Clousarr. We'd like to have you explain exactly how you knew Daneel was a robot. And lots more, mister, lots more. Daneel, step outside and get through to the Commissioner. He'll be at his home by now. Ask him to come down to the office. Tell him I have a fellow who can't wait to be questioned."

R. Daneel stepped out of the room.

BALEY said, "What makes your wheels go round, Clousarr?"

"I want a lawyer."

"You'll get one. Meanwhile, suppose you tell me what makes you Medievalists tick."

Clousarr looked away in a determined silence.

Baley said, "We know all about you *and* your organization. I'm not bluffing. Just tell me for my own curiosity—what do you Medievalists *want*?"

"Back to the soil," said Clousarr in a stifled voice. "That's simple, isn't it?"

"It's simple to say, but isn't simple to do. How's the soil going to feed eight billions?"

"Did I say back to the soil overnight? Or in a year? Or in a hundred years? Step by step. It doesn't matter how long it takes, but let's get started out of these caves we live in. Let's get out into the fresh air."

"Have *you* ever been out in the fresh air?"

Clousarr squirmed. "All right, so I'm ruined, too. But the children aren't ruined yet. Get them out, for God's sake. Let them have space and open air and sun. If we've got to, we can cut our population little by little."

"Backward to an impossible past." Baley did not really know why he was arguing, except for the strange fever that was burning in his own veins. "Back to the seed, to the egg, to the womb. Why not move forward instead? Don't cut Earth's population. Use it for export. Go back to the soil, but go back to the soil of other planets. Colonize!"

Clousarr laughed harshly. "And make more Outer Worlds? More Spacers?"

"We won't. The Outer Worlds were settled by Earthmen who came from a planet that did not have Cities—by Earthmen who were individualists and materialists. Those qualities were carried to an unhealthy extreme. We can now colonize out of a society that has carried cooperation, if anything, too far. Now environ-

ment and tradition can interact to form a new middle way, distinct from either old Earth or the Outer Worlds. Something newer and better."

He was parroting Dr. Fastolfe, he knew, but it was coming out as though he himself had been thinking of it for years.

Clousarr said, "Yeast! Colonize desert worlds instead of developing our own? What fools would try?"

"Many—and they wouldn't be fools. There'd be robots to help."

"No," said Clousarr fiercely. "Never! No robots!"

"Why not, for God's sake? What are we afraid of in robots? If you want my guess, we all feel inferior to the Spacers and hate it. We've got to feel superior somehow, somewhere, to make up for it. It kills us that we can't at least feel superior to robots. They seem to be better than us—only they're *not*. That's the irony of it."

LIJE Baley felt his blood heating as he spoke. "Look at Daneel. I've been with him for over two days. He's taller than I am, stronger, handsomer. He looks like a Spacer, in fact. He's got a better memory and knows more facts. He doesn't have to sleep or eat. He's not troubled by sickness or panic or love or guilt.

"But he's a machine. I can do anything I want to him, the way I can to that micro-balance right there. If I slam the micro-balance, it won't hit me back. Neither will Daneel. I can order him to use a blaster on himself and he'll do it.

"We can't ever build a robot that will be as *good* as a human being in anything that counts. We can't create a robot with a sense of beauty or a sense of ethics or a sense of religion. There's no way we can raise a positronic brain one inch above the level of absolute materialism.

"We can't, damn it—not as long as we don't understand what makes our own brains tick. Not as long as things exist that science can't measure. What *is* beauty, or goodness, or art, or love, or God? We're forever teetering on the brink of the unknowable, trying to understand what can't be understood. It's what makes us men.

"A robot's brain must be finite or it can't be built. It must be calculated to the final decimal place, so that it has an end. Jehoshaphat, what are you afraid of? A robot can look like Daneel, he can look like a god, and yet be no more human than a blob of yeast. Can't you see that?"

Clousarr had tried to interrupt several times and failed against Baley's furious torrent. Now, when Baley paused in sheer

emotional exhaustion, he said weakly, "Copper turned philosopher. Well, what do you know?"

R. DANEEL re-entered. Baley looked at him and frowned, partly with the anger that had not yet left him, partly with new annoyance.

"What kept you?" he demanded.

R. Daneel said, "I had trouble reaching Commissioner Enderby, Elijah. It turned out that he was still at his office."

Baley looked at his watch. "*Now*? What for?"

"There is a certain confusion at the moment. A corpse has been discovered in the Department."

"*What!* For God's sake, who?"

"The errand boy—R. Sammy."

Baley gulped. He stared at the robot and stated in an outraged voice, "I thought you said a corpse."

R. Daneel amended smoothly, "A robot with a completely deactivated brain, if you prefer."

Clousarr laughed suddenly and Baley turned on him, saying savagely, "Nothing out of you! Understand?" Deliberately, he unlimbered his blaster. Clousarr fell silent.

Baley said, "Well, what of it? R. Sammy blew a fuse. So what?"

"Commissioner Enderby was evasive, Elijah, but while he did not say so outright, my impression is that he believes R. Sammy was deliberately deactivated."

Then, as Baley absorbed that silently, R. Daneel added gravely, "Or if you prefer the phrase—murdered."

CHAPTER XVI

BALEY replaced his blaster, but kept his hand unobtrusively upon its butt. He said, "Walk ahead of us, Clousarr, to 17th Street Exit B."

Clousarr said, "I haven't eaten."

"There's your meal on the floor, where you dumped it."

"I have a right to eat."

"You'll eat in Detention or you'll miss a meal. You won't starve. Get going."

All three were silent as they threaded the maze of New York Yeast—Clousarr moving stonily in advance, Baley right behind him, R. Daneel in the rear.

It was after Baley and R. Daneel had checked out at the receptionist's desk, after Clousarr had drawn a leave of absence, after they were out in the open alongside the parked squad-car, that Clousarr said, "Just a minute."

He hung back, turned toward R. Daneel and, before Baley could make a move to stop him, stepped forward and swung his

open hand full against the robot's cheek.

"What the devil!" cried Baley, grabbing violently at Clousarr.

Clousarr did not resist the plainclothesman's grasp. "It's all right. I'll go along with you. I just wanted to see for myself." He was grinning.

R. Daneel, having rolled with the slap, but not having escaped it entirely, gazed quietly at Clousarr. There was no reddening of his cheek, no mark of any blow. at all.

He said, "That was a dangerous action, Francis. Had I not moved backward, you might easily have damaged your hand. As it is, I regret that I must have caused you pain."

Clousarr laughed.

Baley said, "Get in, Clousarr. You too, Daneel — right in the back seat with him. And make sure he doesn't move. I don't care if it means breaking his arm. That's an order."

"What about the First Law?" mocked Clousarr.

"I think Daneel is strong enough and fast enough to stop you without hurting you. But it might do you good to have an arm or two broken, at that."

Baley got behind the wheel and the squad-car gathered speed. The empty wind ruffled his hair and Clousarr's, but R. Daneel's remained smoothly in place.

R. DANEEL said quietly to Clousarr, "Do you fear robots for the sake of your job, Mr. Clousarr?"

Baley could not turn to see Clousarr's expression, but he was certain it would be hard and rigid with detestation.

Clousarr's voice replied, "And my kids' jobs. And everyone's kids."

"Surely adjustments are possible," said the robot. "If your children, for instance, were to accept training for emigration—"

Clousarr broke in. "You, too? The policeman talked about emigration. He's got good robot training. Maybe he *is* a robot."

Baley growled, "That's enough, you!"

R. Daneel said evenly, "A training school for emigrants would bring about security, guaranteed classification, an assured career. If you are concerned over your children, that is something to consider."

"I wouldn't take anything from a robot, or a Spacer, or any of the trained hyenas in the Government."

That was all. The silence of the Motorway engulfed them and there was only the soft whirr of the squad-car motor and the hiss of its wheels on the pavement until they reached the Department.

Baley signed a detention certificate for Clousarr and left him

in appropriate hands. Following that, he and R. Daneel took the Motospiral up the levels to Headquarters.

R. Daneel showed no surprise that they had not taken the elevators, nor did Baley expect him to. He was becoming used to the robot's queer mixture of initiative and compliance and tended to leave him out of his calculations. The elevator was the logical method of leaping the vertical gap between Detention and Headquarters. The long moving stairway that was the Motospiral was useful only for short climbs or drops of two or three levels at most. People of all sorts and varieties of administrative occupation stepped on and then off in less than a minute. Only Baley and R. Daneel remained on continuously, moving upward in a slow and stolid measure.

Baley felt he needed the time. It was only minutes at best, but up in Headquarters he would be thrown violently against another phase of the problem and he wanted a rest. He wanted time to think, to orient himself. Slowly as it moved, the Motospiral went too quickly to satisfy him.

DANEEL said, "It seems then we will not be questioning Clousarr just yet."

"He'll keep," said Baley irritably.

"It is a pity. His cerebric qualities—"

"What about them?"

"They have changed in a strange way. What took place between the two of you in the balance room while I was not present?"

Baley said absently, "I passed along the Gospel according to St. Fastolfe."

"I do not understand you, Elijah."

Baley sighed. "I preached emigration, just as he told you in the squad-car."

"I see. And what did you tell him about robots?"

"You really want to know? I told him robots were simply machines. That was the Gospel according to St. Gerrigel. There are any number of gospels, I think."

"Did you by any chance tell him that one could strike a robot without fear of a return blow, much as one could strike any other mechanical object?"

"Except a punching bag, I suppose. Yes—but what made you guess that?" Baley looked curiously at the robot.

"It fits the cerebric changes," said R. Daneel, "and it explains his blow to my face just after we left the factory. He must have been thinking of what you said, so he simultaneously tested your statement, worked off his aggressive feelings and had the pleasure

of seeing me placed in what seemed to him a position of inferiority. In order to be so motivated and allowing for the delta variations in his quintic . . ."

He paused a long moment. "Yes, it is quite interesting. I believe I can form a self-consistent whole of the data."

Headquarters level was approaching. Baley said, "What time is it?"

He thought pettishly: Yeast! I could look at my watch. It's faster.

But he knew why he asked. His motive was not so different from Clousarr's in punching R. Daneel. By giving the robot a trivial order that he must fulfill, he emphasized R. Daneel's mechanical nature and, contrariwise, his own humanity.

Baley thought: We're all brothers. Under the skin, over it, everywhere. Jeshoshaphat!

R. Daneel said, "Twenty-ten."

They stepped off the Motospiral and, for a few seconds, Baley had the usual queer sensation that went with adjustment to non-motion.

He said, "And I haven't eaten. Damn this job, anyway."

ELIJAH saw and heard Commissioner Enderby through the open door of his office. The Common Room was empty and Enderby's voice rang through it. His round face looked bare and weak without its glasses, which he held in his hand while he mopped his smooth forehead with a paper tissue.

His eyes caught Baley just as the latter reached the door, his voice rose in a petulant tenor. "Good God, Baley, where the devil *were* you?"

Baley shrugged off the complaint and said, "What's doing? Where's the night-shift?" And then he caught sight of the second person in the office with the Commissioner. He added blankly, "Dr. Gerrigel!"

The gray-haired roboticist returned the involuntary greeting by nodding briefly. "Glad to see you again, Mr. Baley."

The Commissioner readjusted his glasses and stared at Baley through them. "The entire staff is being questioned downstairs. Signing statements. I was going mad trying to find you. It looked queer, your being away."

"*My* being away!"

"Anybody's being away. Someone in the Department did it and there's going to be hell to pay. What an unholy mess! What an unholy *rotten* mess!"

He raised his hands as though in expostulation to heaven and, as he did so, his eyes fell on R. Daneel.

Baley thought sardonically: First time you've looked Daneel

in the face. Take a good look, Julius!

The Commissioner said in a subdued voice, "*He'll* have to sign a statement. Even I've had to do it. *Me!*"

Baley said, "Look, Commissioner, what makes you so sure that R. Sammy didn't blow a gasket all by himself? How do you know it was deliberate destruction?"

The Commissioner sat down heavily. "Ask *him,*" he said and pointed to Dr. Gerrigel.

Dr. Gerrigel cleared his throat. "I scarcely know how to go about this, Mr. Baley. I take it from your expression that you are surprised to see me."

"Moderately," admitted Baley.

"Well, I was in no real hurry to return to Washington, and my visits to New York are few enough to make me wish to linger. More important, I felt it would be criminal for me to leave the City without at least one more effort to be allowed to analyze your fascinating robot, whom, by the way—" he looked very eager— "I see you have with you."

"Impossible. He's Spacer property."

The roboticist looked disappointed. "Perhaps you might ask them for permission."

Baley's long face remained woodenly unresponsive.

DR. GERRIGEL went on. "I called you, but you weren't in. No one knew where you could be located. I asked for the Commissioner and he asked me to come to headquarters and wait for you."

The Commissioner interposed quickly, "I thought it might be important. I knew you wanted to see the man."

Baley nodded. "Thanks."

Dr. Gerrigel said, "Unfortunately, my guide-rod was somewhat off, or, perhaps in my over-anxiety, I misjudged its temperature. In either case, I took a wrong turning and found myself in a small room—"

The Commissioner interrupted again. "One of the photographic supply rooms, Lije."

"Yes," said Dr. Gerrigel. "And in it was the prone figure of what was obviously a robot. It was quite clear to me after a brief examination that he was irreversibly deactivated. Dead, you might say. Nor was it very difficult to determine the cause of the deactivation."

"What was it?" asked Baley.

"In the robot's partly clenched right fist," said Dr. Gerrigel, "was a shiny ovoid about two inches long and half an inch wide, with a mica window at one end. The fist was in contact with his skull as though the robot's last act had been to touch his head. The

thing he was holding was an alpha-sprayer. You know what they are, I suppose?"

Baley nodded. He had handled several in his lab courses in physics. An alpha-sprayer was a lead-alloy casing with a narrow pit dug into it longitudinally, at the bottom of which was a fragment of a plutonium salt. The pit was capped with a sliver of mica, which was transparent to alpha particles. In that one direction, hard radiation sprayed out.

An alpha-sprayer had many uses, but killing robots was not one of them—not a legal one, at least.

Baley said, "He held it to his head mica-first?"

"Yes, and his positronic brain-paths were immediately randomized. Instant death, so to speak."

Baley turned to the pale Commissioner. "No mistake? It really *was* an alpha-sprayer?"

The Commissioner nodded, his lips pursed. "Absolutely. The counters could spot it ten feet away. Photographic film in the storeroom was fogged. Open and shut."

He seemed to brood about it a moment or two, then said abruptly, "Dr. Gerrigel, I'm afraid you'll have to stay in the City until we get your evidence down on wire-film. I'll have you escorted to a room. You won't mind being under guard, I hope?"

Dr. Gerrigel asked nervously, "Do you think it's necessary?"

"It's safer."

Dr. Gerrigel, seemingly quite abstracted, shook hands all around, even with R. Daneel. He left.

The Commissioner heaved a sigh. "It's one of us, Lije. That's what bothers me. No outsider would come into the Department just to knock off a robot. Plenty of them outside where it's safer. And it had to be somebody who could pick up an alpha-sprayer. They're hard to get hold of."

R. DANEEL spoke, his cool, even voice in contrast with the agitated tone of the Commissioner. He said, "But what is the motive for this murder?"

The Commissioner glanced at R. Daneel with obvious distaste, then looked away. "We're human, too, unfortunately. I suppose policemen can't get to like robots any more than anyone else can. He's gone now, and maybe it's a relief to somebody. He used to annoy you considerably, Lije, remember."

"That is scarcely a murder motive," said R. Daneel.

"No," agreed Baley with decision.

"It isn't murder," said the Commissioner. "It's property damage. Let's keep our legal terms straight. It's just that it was done inside the Department. Anywhere else, it would be nothing. Here it could be a first-class scandal. Lije!"

"Yes?"

"When did you last see R. Sammy?"

Baley said, "R. Daneel spoke to R. Sammy after lunch. I should judge it was about 13:30. He arranged to have us use your office, Commissioner."

"*My* office? What for?"

"I wanted to talk over the case with R. Daneel in moderate privacy. You weren't in, so your office was an obvious choice."

"I see," the Commissioner looked dubious, but let the matter ride. "You didn't see him yourself?"

"No, but I heard his voice, perhaps an hour afterward."

"That would be about 14:30?"

"Or a little sooner."

The Commissioner bit his lower lip thoughtfully. "Well, that settles one thing. The boy—Vincent Barrett—was here today."

"I know. But he wouldn't do this."

THE Commissioner lifted his eyes to Baley's face. "Why not? R. Sammy took his job away. I can understand how he feels. There would be a tremendous sense of injustice. He'd want revenge. Wouldn't you? But the fact is that he left the building

at 14:00 and you heard R. Sammy alive at 14:30. Of course, he might have given the alpha-sprayer to R. Sammy before he left, with instructions not to use it for an hour. But where could he have gotten an alpha-sprayer? No, it doesn't hold up. Let's get back to R. Sammy. When you spoke to him at 14:30, what did he say?"

Baley hesitated a perceptible moment, then replied carefully, "I don't remember. We left shortly afterward."

"Where did you go?"

"Yeast Town, eventually."

The Commissioner rubbed his chin. "Jessie was in today. We checked on all visitors, of course. Why did she come here?"

"Family matters."

"I'm afraid she'll have to be questioned."

"I understand police routine, Commissioner. Incidentally, what about the alpha-spray itself? Has it been traced?"

"Oh, yes. It came from one of the power plants."

"How do they account for having lost it?"

"They don't. They have no idea. But look, Lije, except for routine statements, this has nothing to do with you. You stick to your case. It's just that . . . Well, you stick to the Spacetown investigation."

Baley said, "May I give my routine statements later, Commissioner? I haven't eaten yet."

Commissioner Enderby blinked. "By all means, get something to eat. But stay inside the Department, will you? Your partner's right, though, Lije—" he seemed to avoid addressing R. Daneel or using his name—"It's the motive we need."

Baley felt suddenly frozen. Something outside himself, something completely alien, took up the events of this day and the day before and the day before that and juggled them. A pattern began to form.

He said, "Which power plant did the alpha-sprayer come from, Commissioner?"

"The Williamsburg plant. Why?"

"Nothing—nothing."

The last word Baley heard the Commissioner mutter as he strode out of the office, with R. Daneel immediately behind him, was, "Motive. Motive."

BALEY ate a sparse meal in the small and infrequently used Department lunch room. He devoured a stuffed tomato on lettuce without noticing what he was eating. For a second or so, after he had gulped down the last mouthful, his fork still slithered aimlessly over the slick disposable plate, searching automatically for something that was

no longer there.

He became aware of it and put down his fork with a muffled, "Jehoshaphat!" He said, "Daneel!"

R. Daneel had been sitting at another table, as though he wished to leave the obviously preoccupied Baley in peace, or as though he required privacy himself. Baley was past caring which.

Daneel stood up, moved to Baley's table and sat down again. "Yes, partner Elijah?"

Baley did not look at him. "Daneel, they'll question Jessie and myself. Let me answer the questions in my own way, understand?"

"What if I am asked a direct question? It is not possible for me to saying anything but what is so."

"*If* you are asked a direct question, very well. Just don't volunteer information. You can do that, can't you?"

"I believe so, Elijah, provided it does not mean that I am hurting a human being by remaining silent."

Baley said grimly, "You'll hurt *me* if you don't. I assure you of that."

"I do not quite comprehend your point of view, partner Elijah. Surely the matter of R. Sammy cannot concern you."

"No? It all centers about motive, doesn't? You've questioned the motive. The Commissioner questioned it. I question it myself, for that matter. Why should anyone want to kill R. Sammy? Mind you, it's not just a question of who would want to smash up robots in general. Practically any Earthman would want to do that.

"The question is, who would want to single out R. Sammy? Vincent Barrett might, but the Commissioner said he couldn't get hold of an alpha-sprayer, and he's right. We have to look somewhere else and it so happens that one other person has a motive. It glares out. It yells. It stinks to top level."

"Who is the person, Elijah?"

Baley said softly, "I am, Daneel."

R. DANEEL'S expressionless face did not change under the impact of the statement. He merely shook his head.

Baley said, "You don't agree? My wife came to the office today. They know that already. Even the Commissioner is curious. If I weren't a personal friend, he wouldn't have stopped his questioning so soon. Now they'll find out why. That's certain. She was part of a conspiracy—a foolish and harmless one, but a conspiracy just the same. And a policeman can't afford to have his wife mixed up with anything

like that. It would be to my obvious interest to see that the matter was hushed up.

"Well, who knew about it?" he added. "You and I, of course, and Jessie—*and R. Sammy*. He saw her in a state of panic. When he told her that we had left orders not to be disturbed, she must have lost control. You saw how she was when she came in."

R. Daneel said, "It is unlikely that she said anything incriminating to him."

"That may be so. But I'm reconstructing the case the way they will. They'll say she did. There's my motive. I killed him to keep him quiet."

"They will not think so."

"They *will* think so. The murder was arranged deliberately in order to throw suspicion on me. Why use an alpha-sprayer? It's a rather risky weapon. It's hard to get and it can be traced. I believe those were the very reasons it *was* used. The murderer even ordered R. Sammy to go into the photographic supply room and kill himself there. It seems obvious to me that the reason for that was to have the method of murder unmistakable. Even if everyone was infantile enough not to recognize the alpha-sprayer immediately, someone would be bound to notice fogged photographic film in fairly short order."

"How does all this relate to you, Elijah?"

Baley grinned nervously, his long face completely devoid of humor. "Very neatly. The alpha-sprayer was taken from the Williamsburg power plant. You and I passed through the Williamsburg power plant yesterday. We were seen and that fact will come out. That gives me opportunity to get the weapon as well as motive for the crime. And it may turn out that we were the last ones to see or hear R. Sammy alive—except for the real murderer, of course."

"I was with you in the power plant. I can testify that you did not have the opportunity to steal an alpha-sprayer."

"Thanks," said Baley sadly, "but you're a robot. Your testimony will be invalid."

"The Commissioner is your friend. He will listen. He will have to listen."

"The Commissioner has a job to keep, and he's already a bit uneasy about me. There's only one chance of saving myself from this very nasty situation."

"Yes?"

"I ASK myself, *why* am I being framed? Obviously, to get rid of me. But why? Again, obviously, because I am dangerous to someone. I am doing my best to be dangerous to whoever

killed Dr. Sarton in Spacetown. That might mean the Medievalists, of course, or at least the inner group among them. It would be this inner group that would know I passed through the power plant. One or more of them might bave followed us along the strips that far, even though you thought we had lost them.

"So the chances are that, if I find the murderer of Dr. Sarton, I find tbe man or men trying to get me out of the way. If I think it through—if I crack the case—I'll be safe. And Jessie. I couldn't stand to have her . . . But I don't have much time."

Baley looked at R. Daneel with sudden burning hope. Whatever the creature was, he was strong and faithful, inspired by no selfishness. What more could you ask of any friend? Baley needed a friend, and he was in no mood to cavil at the fact that a gear replaced a blood-vessel in this particular one.

"You and I," he said. "You and I, Daneel. We'll get it out of Clousarr. You can use your cerebroanalysis, squeeze the most out of it, make it . . ."

He stopped in astonishment. R. Daneel was shaking his head.

The robot said, "I am sorry, Elijah—" there was no trace of sorrow on his face, of course—"but I anticipated none of this. Perhaps my action was to your harm. I am sorry if the general good requires that."

"What general good?" stammered Baley.

"I have been in communication with Dr. Fastolfe."

"Jehoshaphat! When?"

"While you were eating. I possess the capacity for sub-etheric communication with Spacetown. It was thought wise to install a self-contained circuit for the purpose within me. I've used it before."

Baley's lips tightened. Was he never to finish learning of new potentialities within the lump of metal and plastic that faced him now?

"Well?" he managed to say. "What happened?"

"You will have to clear yourself of suspicion of the murder of R. Sammy through some means other than the investigation of the murder of my designer, Dr. Sarton. Our people at Spacetown, as a result of my information, have decided to bring that investigation to an end, as of today, and to begin plans for leaving Spacetown and Earth."

CHAPTER XVII

BALEY looked at his watch with something close to detachment. It was 21:45. In two and a quarter hours, it would be

midnight. He had been awake since before six and had been under tension now for more than two days.

"What's it all about, Daneel?" he asked.

R. Daneel said, "Is it not obvious?"

"It is not a damn bit obvious."

"We are here," said the robot, "to break down the isolationism of Earth and force its people into new expansion and colonization."

"I know that."

"If we were anxious to exact punishment for the murder of Dr. Sarton, it was not that in doing so we expected to bring Dr. Sarton back to life. It was only that failure to do so would strengthen the position of our home-planet politicians, who are against the very idea of Spacetown."

"But now," said Baley, with sudden violence, "you say you're getting ready to go home of your own accord. Why? The answer to the Sarton case is close. It *must* be close or they wouldn't be trying so hard to blast me out of the investigation. I have a feeling I have all the facts I need to work out the answer."

Baley drew a shuddering breath. He was making a spectacle of himself before a machine that could only stare at him silently.

He said harshly, "Well, never mind that. Why are the Spacers breaking off?"

"Our project is concluded. We are satisfied that Earth will colonize."

"You've switched to optimism?"

"For a long time now, we of Spacetown have tried to change Earth by changing its economy. We have tried to introduce our own C/Fe culture—the carbon and iron of a human-plus-robot society. Your planetary and various City government cooperated with us because it was expedient to do so. Still, for twenty-five years, we had consistently failed. The harder we tried, the stronger the opposing party of the Medievalists grew."

"I know all this," said Baley. "Get to the point."

R. DANEEL went on, "It was Dr. Sarton who argued that we must reverse our tactics. We must first find a segment of Earth's population that desired what we desired or could be persuaded to do so. By encouraging and helping them, we could make the movement a native rather than an alien one. The difficulty was in finding the native element best suited for our purposes. You yourself, Elijah, were an interesting experiment."

"*I?* What do you mean?" demanded Baley.

"We were glad your Commissioner recommended you. From your psychic profile, we judged you to be a useful specimen. Cerebroanalysis confirmed our judgment. You are a practical man, Elijah. You do not moon romantically over Earth's past, despite your healthy interest in it. Nor do you blindly accept the City culture of the present. We felt that it was people such as yourself who could lead Earthmen to the stars once more. It was one reason Dr. Fastolfe was anxious to see you yesterday morning.

"To be sure, your practical nature was embarrassingly intense. You refused to understand that the fanatical service of an ideal, even a mistaken ideal, may make a man do things quite beyond his ordinary capacity, as, for instance, crossing open country at night to destroy someone he considers an arch-enemy of his cause. We were not overly surprised, therefore, that you were stubborn and daring enough to attempt to prove the murder a fraud. In a way, it showed you were the man we wanted for our experiment."

"For God's sake, *what* experiment?"

"The experiment of persuading you that colonization was the answer to Earth's problems." R. Daneel spoke quietly.

"Well, I was persuaded."

"Yes, under the influence of the appropriate drug."

Baley almost dropped the pipe he was carefully filling with precious rationed tobacco. Once again, he was seeing that scene in the Spacetown dome—himself swimming back to awareness after the shock of learning that R. Daneel was a robot, after all —R. Daneel's smooth fingers pinching up the flesh of his arm —a hypo-sliver standing out darkly under his skin and then fading away.

He said chokingly, "What was in the hypo-sliver?"

"Nothing that need alarm you, Elijah. It was a mild drug intended only to make your mind more receptive."

"And so I believed whatever was told me. Is that it?" He asked unevenly.

"Not quite. You would not believe anything that was foreign to your basic thought pattern. In fact, the results of the experiment were disappointing. Dr. Fastolfe had hoped you would become fanatical on the subject. Instead, you became rather distantly approving and no more. Your practical nature stood in the way. It made us realize that our only hope was the romantics. And the romantics, unfortunately, were all Medievalists, actual or potential."

BALEY felt irrationally proud of himself, glad of his stubbornness and happy that he had disappointed them. Let them experiment with someone else.

He grinned. "So now you've given up. You're going home."

"No," R. Daneel answered. "I said a few moments ago that we were satisfied Earth would colonize. It was you who gave us the answer."

"*I* gave it to you? How?"

"You spoke to Francis Clousarr concerning colonization. At least our experiment on you had *that* result. And Clousarr's aura changed."

"You mean I convinced him I was right. Nonsense!"

"Conviction does not come that easily. But the cerebric changes demonstrated conclusively that the Medievalist mind is *open* to that sort of conviction. The phenomenon called Medievalism is a frustrated wish to pioneer. To be sure, the direction in which that wish is directed at present is toward Earth. But the vision of distant worlds is a similar magnet and the romantic can turn to it easily. Clousarr felt the attraction as a result of a single lecture from you.

"So, you see, we of Spacetown had already succeeded without knowing it. We ourselves, rather than anything we tried to introduce, were the unsettling factor. We crystallized the romantic impulses on Earth into Medievalism, and induced an organization. After all, it is the Medievalist who wishes to break the chains of custom, not the City officials who have most to gain from preserving the *status quo*.

"If we leave behind a few obscure individuals or robots such as myself, who, together with sympathetic Earthmen such as yourself, can establish the training schools for emigrants that I spoke of, the Medievalist will eventually turn away from Earth. He will need robots and either get them from us or build his own. He will develop a C/Fe culture to suit himself."

It was a long speech for R. Daneel. He must have realized that himself, for he added, "I tell you all this to explain why it is necessary to do something that may hurt you."

LIJE BALEY said, "Just a minute. Let me introduce a practical note. You'll go back to your worlds and say that an Earthman killed a Spacer and went unpunished. The Outer Worlds will demand an indemnity from Earth and Earth is no longer in a mood to give in to Spacer threats. There will be trouble."

"I am sure that will not happen, Elijah. The elements on our

planet most interested in pressing for an indemnity would also be most interested in forcing an end to Spacetown. We can easily offer the latter as an inducement to abandon the former. It is what we plan to do. Earth will be left in peace."

Baley broke out, his voice hoarse with sudden despair, "And where does that leave *me?* The Commissioner will drop the Sarton investigation at once if Spacetown is willing, but the R. Sammy thing will have to continue because it points to conspiracy inside the Department. He'll be in any minute with a ream of evidence against me. I know that. It's been arranged. I'll be declassified, Daneel. There's Jessie to consider. There's Bentley—"

R. Daneel said, "In the service of humanity's good, minor wrongs to individuals must be tolerated. Dr. Sarton has a surviving wife, two children, parents, a sister, many friends. All must grieve at his death and be saddened at the thought that his murderer has not been found and punished."

"Then why not stay and find him?"

"It is no longer necessary."

Baley said bitterly, "Why not admit that the entire investigation was an excuse to study us under field conditions? You never cared who killed Dr. Sarton."

"We would have liked to know," said R. Daneel coolly, "but we were never under any delusions as to which was more important, an individual or humanity. To continue the investigation would involve interfering with a situation which we now find satisfactory."

"You mean the murderer might turn out to be a prominent Medievalist, and right now the Spacers don't want to do anything to antagonize their new friends."

"It is not as I would say it, but there is truth in your words." Daneel sounded faintly troubled.

"Where's your justice circuit, Daneel? Is this justice?"

"There are degrees of justice, Elijah. When the lesser is incompatible with the greater, the lesser must give way."

It was as though Baley's mind were circling the impregnable logic of R. Daneel's positronic brain, searching for a loophole, a weakness.

HE said, "Have you no personal curiosity, Daneel? You've called yourself a detective. Do you know what that implies?"

Baley's hopes, not strong in the first place, weakened as he spoke. The word "curiosity" brought back his own remarks to Francis Clousarr four hours be-

fore. He had known well enough then the qualities that marked off a man from a machine. Curiosity *had* to be one of them.

R. Daneel echoed his thoughts by asking, "What do you mean by curiosity?"

Baley sighed. "Curiosity is the name we give to a desire to extend one's knowledge."

"Such a desire exists within me, when the extension of knowledge is necessary for the performance of an assigned task."

"Yes," said Baley sarcastically, "like when you ask questions about Bentley's contact lenses in order to learn more of Earth's customs."

"Precisely," R. Daneel agreed, with no sign of any awareness of sarcasm. "Aimless extension of knowledge, however, which is what I think you really mean by the term curiosity, is merely inefficiency. I am designed to avoid inefficiency."

While R. Daneel spoke, Baley's mouth opened and stayed so. Somewhere, deep inside his unconscious, he had built a case, built it carefully and in detail, but had been brought up short by a single impossibility. One impossibility that could be neither jumped over, burrowed under nor shunted aside.

But the inconsistency had vanished — the case was all in his hands—at last.

THE glare of mental light appeared to have stimulated Baley mightily. At least, he suddenly knew what R. Daneel's weakness must be, the weakness of any thinking machine. The thing *must* be literal-minded.

He said, "Then Project Spacetown is concluded as of today and with it the Sarton investigation. Is that it?"

"That is the decision of our people at Spacetown," agreed R. Daneel.

"But today is not yet over." Baley looked at his watch. "There is an hour and a half until midnight. Let's go on as before. It will do your people no harm. In fact, it will do them great good My word upon it. It is only an hour and a half I ask."

R. Daneel said, "What you say is correct. Today is not over. I had not thought of that, partner Elijah."

Baley was "partner Elijah" again. He felt his muscles relax

He said, "Dr. Fastolfe spoke of a film of the scene of the murder when I was in Spacetown yesterday."

"Yes. At the time, you were not interested."

"At the time, I wasn't myself. It's different now. Can you get a copy of the film?"

"Yes, partner Elijah."

"I mean now—instantly!"

"In ten minutes, if I can use

the Department transmitter."

The process took less than that. Baley stared at the small aluminum block he held in his trembling hands. Within it, the subtle forces transmitted from Spacetown had strongly fixed a certain atomic pattern.

And at that moment, Commissioner Julius Enderby stood in the doorway. He saw Baley and anxiety passed from his round face, leaving behind it a look of growing thunder.

He said, "Look here, Lije, you're taking a devil of a time eating."

"I was bone-tired, Commissioner. Sorry if I've delayed you."

"I wouldn't mind, only—you'd better come to my office.'

Baley's eyes flicked toward R. Daneel, but met no answering look. He followed Enderby out.

JULIUS ENDERBY nervously tramped the floor before his desk. Baley watched him, himself far from composed. Occasionally, he glanced at his watch. It was 22:45.

The Commissioner moved his glasses up onto his forehead and rubbed his eyes with thumb and forefinger. "Lije," he said suddenly, "when were you last in the Williamsburg power plant?"

Baley said, "Yesterday, after I left the office. About 1800 or shortly thereafter."

The Commissioner shook his head. "Why didn't you say so sooner, Lije?"

"I was going to. I haven't given an official statement yet."

"What were you doing there?"

"Just passing through, on our way to my temporary sleeping quarters."

The Commissioner stopped short, stood before Baley and said, "That's no good, Lije. No one just passes through a power plant to get somewhere else."

Baley shrugged. There was no point in going through the story of the pursuing Medievalists, of the dash along the strips. Not now.

He said, "If you're trying to hint that I had an opportunity to get the alpha-sprayer that knocked out R. Sammy, Daneel was with me and will testify I went right through the plant without stopping."

Slowly, the Commissioner sat down. He did not look in R. Daneel's direction or offer to speak to him. "Lije, I don't know what to say or what to think. And it's no use having your—your partner as alibi. He can't give evidence."

"I still deny that I took an alpha-sprayer."

The Commissioner's fingers intertwined. He said, "Why did Jessie come to see you here this afternoon?"

"You asked me that before Commissioner. Same answer. Family matters."

"I've got information from Francis Clousarr, Lije."

"What kind of information?"

"He claims that a Jezebel Baley is a member of a Medievalist society dedicated to the overthrow of the government by force."

"Are you sure he has the right person? There are many Baleys."

"There aren't many Jezebel Baleys."

"He said Jezebel?"

"I heard him, Lije."

"ALL right," Baley said. "Jessie was a member of a harmless lunatic-fringe organization. She never did anything but attend meetings and feel devilish about it."

"It won't look that way to a board of review, Lije."

"You mean I'm going to be suspended and held on suspicion of destroying government property in the form of R. Sammy?"

"I hope not, Lije, but it looks bad. Everyone knows you didn't like R. Sammy. Your wife was seen talking to him this afternoon. She was in tears and some of her words were heard. They were harmless in themselves, but two and two can be added up, Lije. And you had an opportunity to obtain the weapon."

Baley interrupted. "If I were wiping out all evidence against Jessie, would I arrest Francis Clousarr? He seems to know a lot more about her than R. Sammy could have. Another thing. I passed through the power plant eighteen hours before R. Sammy spoke to Jessie. Did I know, that long in advance, I would have to destroy him, and pick up an alpha-sprayer by pure clairvoyance?"

The Commissioner said, "Those are good objections. I'll do my best."

"Yes? Do you really believe I didn't do it, Commissioner?"

Enderby said slowly, "I don't know what to think."

"Then I'll tell you. Commissioner, this is all a careful and elaborate frame."

"Now wait, Lije! Don't strike out blindly. You won't get any sympathy with that line of defense."

"I'm not after sympathy. I'm just telling the truth. I'm being taken out of circulation to prevent me from learning the facts about the Sarton murder. Unfortunately for my framing pal, it's too late for that."

"*What!*"

Baley looked at his watch. It was 23:00.

He said, "I know who is framing me and I know how Dr. Sarton was killed and by whom, and

I have one hour to tell you about it, catch the man and end the investigation."

CHAPTER XVIII

COMMISSIONER Enderby's eyes narrowed and he glared at Baley. "You tried something like this in Spacetown yesterday morning. Not again."

Baley nodded. "I know. I was wrong the first time."

He thought fiercely: Also the second time. But not now!

He said, "Judge for yourself, Commissioner. Grant that the evidence against me has been planted. Go that far with me and see where it takes you. Ask yourself who could have planted that evidence. Obviously, only someone who knew I was in the Williamsburg plant yesterday evening."

"All right — who?" asked Enderby.

"I was followed out of the kitchen by a Medievalist group. I lost them, or I thought I did, but obviously at least one of them saw me pass through the plant. My only purpose in going through was to lose them."

The Commissioner considered. "Clousarr? Was he with them?"

Baley nodded.

Enderby said, "All right, we'll question him."

"Don't stop there, Commissioner. Keep thinking."

"Clousarr saw you go into the Williamsburg power plant, or else someone in his group did and passed the information along to him. He decided to utilize that fact to get you into trouble and off the investigation. Is that what you're saying?"

"It's close."

"Good." The Commissioner seemed to warm to the task. "He knew your wife was a member of bis organization, naturally, and so he knew you wouldn't face a really close probe into your private life. He thought you would resign rather than fight circumstantial evidence. By the way, Lije, what *about* a resignation?"

"Not in a million years, Commissioner."

Enderby shrugged. "Well, so he got an alpha-sprayer, presumably through a confederate in the plant, and had another confederate arrange the destruction of R. Sammy." His fingers drummed ligbtly on the desk. "No good, Lije."

"Why not?"

"Too far-fetched. Too many confederates. And he has a cast-iron alibi for the night and morning of the Spacetown murder. We checked that almost right away."

"I never said it was Clousarr, Commissioner. *You* did. It could be anyone in the Medievalist organization. Clousarr is just the

owner of a face that Daneel happened to recognize. Though there is one queer thing about him."

"What?" asked Enderby.

"He did know Jessie was a member. Does he know every member in the organization, do you suppose?"

"I have no idea. He knew about Jessie, anyway. Maybe she was important because she was the wife of a policeman."

"He came right out and said Jezebel Baley was a member—just like that? Jezebel Baley?"

ENDERBY nodded. "I heard him myself, Lije."

"That's the funny thing, Commissioner," said Baley. "Jessie hasn't used her full first name since before Bentley was born. Not once. I know that for a fact. She joined the Medievalists after she dropped her full name. How would Clousarr know her as Jezebel then?"

The Commissioner said, "Oh? Well, he probably said Jessie. I guess I just filled it in automatically—"

"Until now you were quite sure he said Jezebel. I asked several times."

The Commissioner's voice rose. "You're not saying I'm a liar, are you?"

"I'm just wondering if Clousarr said nothing at all. You've known Jessie for twenty years and *you* knew her name was Jezebel."

"You're off your head, man."

"Am I? Where were you after lunch today? You were out of your office for two hours, at least."

"Are you questioning me?"

"I'll answer for you, too. You were in the Williamsburg power plant."

The Commissioner jumped up from his seat. His forehead glistened. "What the hell are you trying to say?"

"*Weren't* you?"

"Baley, you're suspended. Hand me your credentials."

"Not till you hear me out."

"I don't intend to. You're guilty. What gets me is your cheap attempt to make *me* look as though I were conspiring against you. In fact, you're under arrest."

"No," said Baley. "Not yet, Commissioner. I've got a blaster on you. Don't fool with me, please, because I intend to have my say. Afterward, you can do what you please."

With widening eyes, Julius Enderby stammered, "Twenty years for this, Baley, in the deepest prison level in the City."

For the first time since R. Daneel had entered the City, the Commissioner spoke directly to the robot. "Hold him, you. First Law!"

R. DANEEL moved suddenly. His hand clamped down on Baley's wrist. He said quietly, "I cannot permit this, partner Elijah. You must do no harm to the Commissioner."

"I have no intention of hurting him, Daneel. You said you would help me clear this up. I have 45 minutes."

R. Daneel, without releasing Baley's wrist, said, "Commissioner, I believe Elijah should be allowed to speak. I am in communication with Dr. Fastolfe at this moment."

"How? *How?*" demanded the Commissioner wildly.

"Self-contained sub-etheric unit," explained Baley. "He's a great little model of a robot, Commissioner."

"I am in communication with Dr. Fastolfe," the robot went on inexorably, "and it would make a bad impression, Commissioner, if you were to refuse to listen to Elijah. Damaging inferences might be drawn."

The Commissioner fell back in his chair.

"I say you were in the Williamsburg power plant today, Commissioner," Baley said. "You got the alpha-sprayer and gave it to R. Sammy. You deliberately chose the Williamsburg power plant in order to incriminate me. You even seized on Dr. Gerrigel's reappearance to invite him down to the Department and give him a deliberately maladjusted guide-rod to lead him to the photographic supply room and allow him to find R. Sammy's remains. You counted on him to make a correct diagnosis."

Baley put away his blaster. "If you want to have me arrested now, go ahead, but Spacetown won't take that for an answer."

"Motive," spluttered Enderby breathlessly. His glasses were fogged and he removed them, looking once again curiously vague and helpless in their absence. "What motive could I have for this?"

"You got me into trouble, didn't you? It will put a spoke in the Sarton investigation, won't it? And all that aside, R. Sammy knew too much."

"About *what*, in Heaven's name?"

"About the way in which a Spacer was murdered five and a half days ago. You see, Commissioner, *you* murdered Dr. Sarton of Spacetown."

COMMISSIONER Enderby shook his head violently.

R. Daneel said, "Partner Elijah, you know it is impossible for Commissioner Enderby to have murdered Dr. Sarton."

"Listen. Enderby begged *me* to take the case. Why? In the first place, we were college friends and

he thought he could count on my loyalty-index. Secondly, he knew Jessie was a member of an underground organization and he counted on blackmailing me into silence if I got too close to the truth. But he wasn't really worried about that. At the very beginning, he did his best to arouse my distrust of you, Daneel, to make certain the two of us worked at cross-purposes. He knew about my father's declassification. He could guess how I would react."

The Commissioner said weakly, "How could I know about Jessie?" He turned to the robot. "*You*—if you're transmitting this to Spacetown—tell them it's a lie!"

Baley broke in, "Certainly you would know about Jessie. You're a Medievalist and part of the organization. Your old-fashioned spectacles! Your windows! It's obvious.

"And there's better evidence. How did Jessie find out Daneel was a robot? Through her Medievalist organization, of course. But that just shoves the problem one step backward. How did *they* know?

"You, Commissioner, dismissed it with a theory that Daneel was recognized as a robot during the incident at the shoe counter. I couldn't believe that. I took him for human when I first saw him, and there's nothing wrong with my eyes.

"Yesterday, I asked Dr. Gerrigel to come in from Washington. At the time, my only purpose was to see if he would recognize Daneel for what he was, with no prompting on my part. Commissioner, he didn't! I introduced him to Daneel, he shook hands with him, we all talked together and it was only after the subject got around to humanoid robots that he suddenly caught on. Now that was Dr. Gerrigel, Earth's greatest expert on robots. Do you mean to say a few Medievalist rioters could do better?

"It's obvious now that the Medievalists must have known Daneel was a robot to begin with. The incident at the shoe counter was deliberately arranged to show Daneel and, through him, Spacetown, the extent of anti-robot feeling in the City. It was meant to confuse the issue.

"Now if they knew the truth about Daneel to begin with, who told them? I didn't. I once thought it was Daneel himself, but that's out. The only other Earthman who knew about it was you, Commissioner."

ENDERBY said, "There could be spies in the Department, too. The Medievalists could have us riddled with them. Your wife

was one, and if you don't find it impossible that I should be one, why not others in the Department?"

Baley shook his head. "Let's not bring up mysterious spies until we see where the straightforward solution leads us.

"It's interesting, now that I look back on it, Commissioner, to see how your spirits rose and fell in direct ratio with my nearness to the solution. When I wanted to visit Spacetown yesterday morning and wouldn't tell you the reason, you were in a state of agitation. Did you think I had you pinned, Commissioner?

"Then when I came out with my completely wrong solution and you saw how immensely far from the truth I was, you were confident again. You even argued with me—defended the Spacers. After that, you were master of yourself for a while—quite confident.

"Then I put in my call for Dr. Gerrigel, and you wanted to know why, and I wouldn't tell you. That plunged you into the abyss again, because you feared—"

R. Daneel suddenly raised his band. "Partner Elijah!"

Baley looked at his watch—23:42! He said, "What is it?"

R. Daneel said, "He might have been disturbed at thinking you would find out his Medievalist connections, if we grant their existence. There is nothing, though, to connect him with the murder."

Baley said, "You're wrong, Daneel. He didn't know what I wanted Dr. Gerrigel for, but it was safe to assume that it was for information about robots. This frightened the Commissioner, because a robot had an intimate connection with his greater crime. Isn't that so, Commissioner?"

Enderby raised his head and glowered. "When this is over—" he began.

"How was the murder committed?" interrupted Baley with a suppressed fury. "C/Fe! I use your own term, Daneel. You're so full of the benefits of a C/Fe culture, yet you don't see where an Earthman might have used it for at least a temporary advantage. Let me sketch it in for you.

"There is no inconsistency in the notion of a robot crossing open country. Even at night. Even alone. The Commissioner put a blaster into R. Sammy's hand, told him where to go and when. He himself entered Spacetown through the Personal and was relieved of his own blaster. He received the other from R. Sammy's hands, killed Dr. Sarton, returned the blaster to R. Sammy, who took it back across the fields to New York City. And today he destroyed R. Sammy, who had become dangerous.

"That explains the whole thing. The presence of the Commissioner, the absence of a weapon. And it makes it unnecessary to suppose any human New Yorker had walked a mile under the open sky alone at night."

AT the end of Baley's accusation, R. Daneel said, "I am sorry, partner Elijah, though happy for the Commissioner, that your story explains nothing. I have told you that the cerebro-analysis of the Commissioner proves that it is impossible for him to have committed deliberate murder."

"Thank you," muttered Enderby. His voice gained strength and confidence. "I don't know what your motives are, Baley, or why you should try to ruin me this way, but—"

"Wait," said Baley. "I'm not through. I've got this."

He slammed the aluminum cube on Enderby's desk, tried to feel the confidence he hoped he was radiating. For half an hour, he had been hiding from himself one disturbing fact—that he did *not* know what the picture showed. He was gambling, but it was all he could do now.

Enderby shrank away from the small object. "What is it?"

"It isn't a bomb," said Baley sardonically. "Just an ordinary micro-projector."

"Well? What will it prove?" the Commissioner asked.

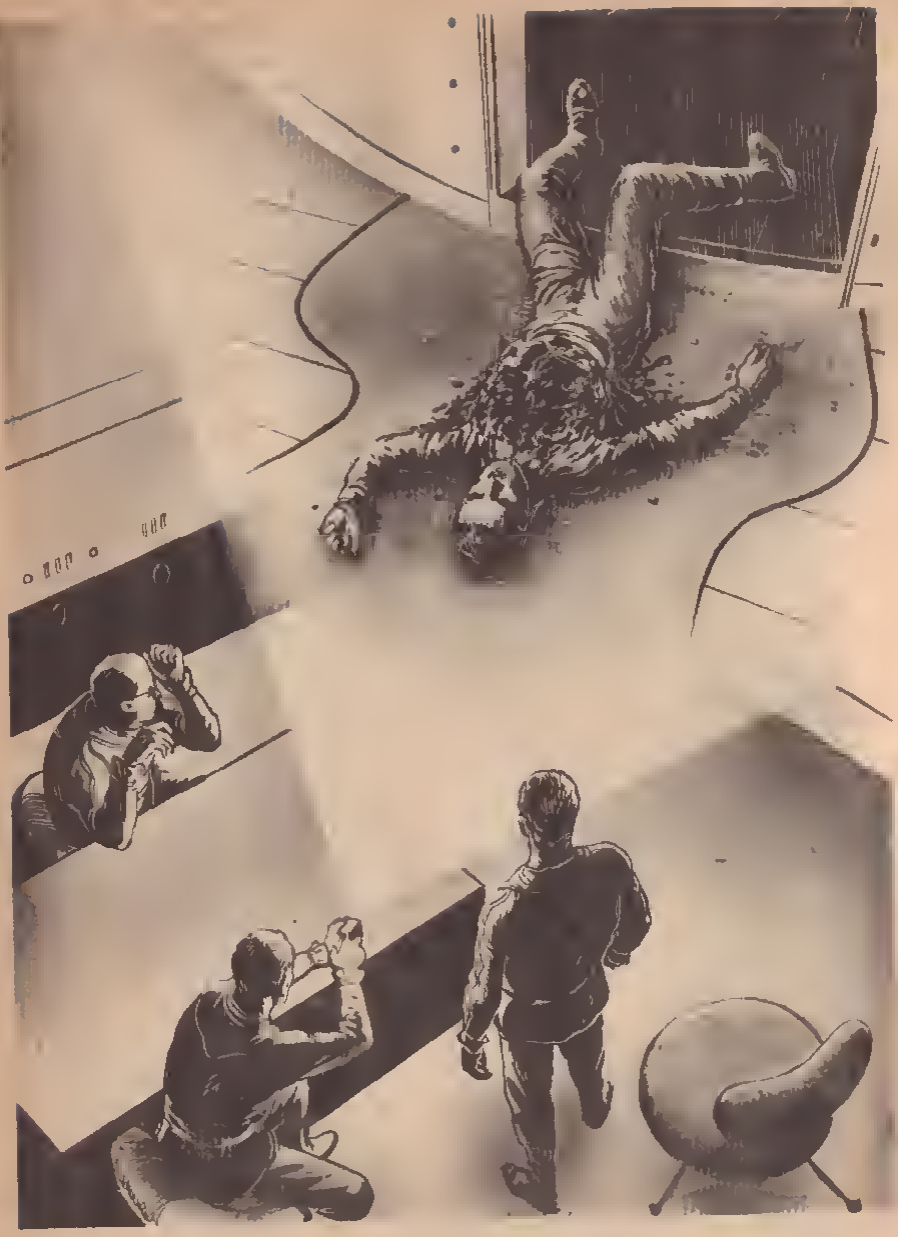
"Suppose we see." His fingernail probed at one of the slits in the cube, and a corner of the Commissioner's office blanked out, then lit up in an alien scene in three dimensions. It reached from floor to ceiling and extended out past the walls of the room. It was awash with a gray light of a sort the City's utilities never provided.

Baley thought, with a pang of mingled distaste and perverse attraction: It must be this "dawn" they talk about.

The pictured scene was of Dr. Sarton's dome. Dr. Sarton's dead body, a horrible, broken remnant, filled its center. Enderby's eyes bulged as he stared.

Baley said, "I know the Commissioner isn't a killer. I don't need you to tell me that, Daneel. If I could have gotten around that one fact earlier, I would have had the solution earlier. Actually, I didn't see a way out of it until an hour ago, when I angrily reminded you that you had once been curious about Bentley's contact lenses.

"That was it, Commissioner. It occurred to me then that your near-sightedness and your glasses were the key. They don't have near-sightedness on the Outer Worlds, I suppose, or they might have reached the true solution of



the murder almost at once. Commissioner, when did you break your glasses?"

"What do you mean?"

"When I first saw you about this case," Baley said, "you told me you had broken your glasses in Spacetown. I assumed that you broke them in your agitation on hearing the news of the murder, but *you* never said so. Actually, if you were entering Spacetown with crime on your mind, you were already agitated enough to drop and break your glasses *before* the murder. Isn't that so?"

R. Daneel said, "I do not see the point, partner Elijah."

BALEY was manipulating Sarton's dome-image as he was speaking. Clumsily, he expanded it, his fingernails unsure in the tension that was overwhelming him. Slowly, the corpse widened, broadened, heightened, came closer. Baley could almost smell the stench of scorched flesh.

Baley cast a side-glance at the Commissioner. Enderby had closed his eyes. He looked sick. Baley felt sick, too, but he *had* to look. Slowly he circled the trimensional image by means of the transmitter controls—rotating it, bringing the ground about the corpse into view in successive quadrants.

He was still talking. He had to. He couldn't stop till he found what he was looking for. He said, "The Commissioner can't commit *deliberate* murder. True! But any man can kill by *accident*. The Commissioner didn't enter Spacetown to kill Dr. Sarton. He came in to kill you, Daneel. *You!*

"He is a Medievalist, an earnest one. He cooperated with Dr. Sarton and knew the purpose for which you were designed, Daneel. He feared that purpose might be achieved, that Earthmen would eventually be weaned away from Earth. So he decided to destroy you, Daneel. You were the only one of your type manufactured as yet, and he had good reason to think that, by demonstrating the extent and determination of Medievalism on Earth, he would discourage the Spacers.

"I don't say even the thought of killing you, Daneel, was a pleasant one. He would have had R. Sammy do it, I imagine, if you didn't look so human that a primitive robot like Sammy could not have told the difference, or understood it. First Law would stop him. Or the Commissioner would have had another human do it if he himself were not the only one who had ready access to Spacetown at all times.

"Let me reconstruct what the Commissioner's plan might have been. He made the appointment with Dr. Sarton, but deliberately came early—at dawn, in fact. Dr.

Sarton would be sleeping, but you, Daneel, would be awake. I assume, by the way, you were living with Dr. Sarton, Daneel?"

THE robot nodded. "You are quite right, partner Elijah."

Baley said, "You would come to the Dome door, Daneel, receive a blaster charge in the chest or head and be done with. The Commissioner would leave quickly, through the deserted streets of Spacetown's dawn, and back to where R. Sammy waited. He would give the robot back the blaster, then slowly walk again to Dr. Sarton's Dome. If necessary, he would 'discover' the body himself. How close am I, Commissioner?"

Enderby writhed. "I didn't—"

"No," said Baley, "you didn't kill Daneel. He's here, and in all the time he's been in the City, you haven't been able to look him in the face or address him by name. Look at him now, Commissioner."

Enderby couldn't. He covered his face with shaking hands.

"I'll tell you what did happen," went on Baley inexorably. "You were at the Dome when you dropped your glasses. You must have been nervous. I've seen you when you're upset. You take the glasses off, wipe them—you did that then. But your hands were shaking and you dropped them. Perhaps you stepped on them. Anyway, they were broken and, just then, the door opened and a figure that looked like Daneel faced you.

"You blasted him, scrabbled up the remains of your glasses and ran. *They* found the body, not you, and when they came to find you, you discovered that it was not Daneel but the early-rising Dr. Sarton you had killed. Dr. Sarton had designed Daneel in his own image, to his great misfortune. If you want the tangible proof, it's there!"

The image of Sarton's Dome quivered and Baley put the transmitter carefully upon the desk, his hand tightly upon it.

Commissioner Enderby's face was distorted with terror and Baley's with tension. R. Daneel, as always, was emotionless.

Baley's finger was pointing. "That glitter in the grooves of the door. What was it, Daneel?"

"Two small slivers of glass," said the robot coolly. "It meant nothing to us."

"It will now. They're bits of concave lenses. Measure them and compare the results with those of the glasses Enderby is wearing now. *Don't smash them, Commissioner!*"

He lunged and wrenched them from the Commissioner's hand. He held them out to R. Daneel. "That's proof enough, I think,

that he was at the Dome earlier than he was thought to be."

R. Daneel said, "I am quite convinced. I can see now that I was thrown completely off the scent by the Commissioner's cerebroanalysis. I congratulate you, partner Elijah."

Baley's watch said 24:00. A new day was beginning.

SLOWLY, the Commissioner's head sank down on his arms. His words were muffled wails. "It was a mistake. I never meant to kill him." Without warning, he slipped from the chair and lay crumpled on the floor.

R. Daneel sprang to him, saying, "You have hurt him, Elijah!"

"He isn't dead, is he?"

"No. Unconscious."

"He'll come to. It was too much for him, I suppose. I had to do it, Daneel. I had no evidence that would stand up in court—only inferences. I had to badger him and let it out little by little, hoping he would break down. He did, Daneel. You heard him confess, didn't you?"

"Yes."

"Now, then, I promised this would be to the benefit of Spacetown's project, so . . . Wait, he's coming to."

The Commissioner groaned. He stared speechlessly at them.

Baley said, "Commissioner, do you hear me?"

The Commissioner nodded listlessly.

"All right, then. The Spacers have more on their minds than your prosecution. If you cooperate with them—"

"What? What?" There was a dawning flicker of hope in the Commissioner's eyes.

"You must be a big wheel in New York's Medievalist organization, maybe even in the planetary setup. Maneuver them toward the colonization of space. You can see the propaganda line, can't you? We can go back to the soil, all right—but on other planets."

"I don't understand," mumbled the Commissioner.

R. Daneel said, "Elijah is quite correct. Help us, Commissioner, and we will forget the past. I am speaking for Dr. Fastolfe and our people generally in this. Of course, if you should agree to help and later betray us, we would always have the fact of your guilt to hold over your head. I hope you understand that, too. It pains me to have to mention it."

"I won't be prosecuted?" asked the Commissioner.

"Not if you help us."

Tears filled his eyes. "I'll do it. It was an accident. Explain that —an accident. I did what I thought right."

Baley said, "If you help us, you *will* be doing right. The colonization of space is the only possible salvation of Earth. You'll realize that if you think about it without prejudice. If you find you cannot, have a short talk with Dr. Fastolfe. And now you can begin to help by quashing the R. Sammy business. Call this one an accident also. End it!"

BALEY got to his feet. He added, "And remember, I'm not the only one who knows the truth, Commissioner. Getting rid of me will ruin you. All Spacetown knows. You see that, don't you?"

R. Daneel said, "It is unnecessary to say more, Elijah. He is sincere. He will help. So much is obvious from his cerebroanalysis."

"Then I can go home. I want to see Jessie and Bentley and take up a natural life again. And I want to sleep. Daneel, will you stay on Earth after the Spacers go?"

R. Daneel said, "I may, along with others. It has not been decided. Why do you ask?"

Baley bit his lip. "I didn't think I would ever say anything like this to anyone like you, Daneel, but I trust you. I even—admire you. I'm too old ever to leave Earth myself, but when schools for emigrants are finally established, there's Bentley. If someday Bentley and you, to-

gether might be able to . . ."

"Perhaps." R. Daneel's face was emotionless.

He turned to Julius Enderby, who was watching them with a flaccid face into which a certain vitality was only now beginning to return.

The robot said, "I have been trying, friend Julius, to understand some remarks Elijah made to me earlier. Perhaps I am beginning to, for it suddenly seems to me that the destruction of what should not be—that is, the destruction of what you people call evil—is less just and desirable than the conversion of this evil into what you call good."

He hesitated. Then, almost as though he were surprised at his own words, he said, "Go, and sin no more!"

Baley, smiling, took R. Daneel's elbow and they walked out the door, fleshly arm in robotic arm.

—ISAAC ASIMOV

Yes! Any 3 of these Top Science-Fiction Thrillers Yours for Only $1.00

With membership

—continued from back cover

WORLD OUT OF MIND *by J. T. M'Intosh*—(Described on other side of this page).

THE ASTOUNDING SCIENCE-FICTION ANTHOLOGY — A story about the first A Bomb . . . written before it was invented! A story of the Thing that becomes whatever it meets. A story of the movie machine that shows "news reels" of any past event. These are just a few of the 24 "cream of the crop" tales skimmed from a dozen years of Astounding Science Fiction Magazine by its editor, John W. Campbell, Jr.

OMNIBUS OF SCIENCE-FICTION — 43 top stories by outstanding authors . . . stories of Wonders of Earth and Man . . . of startling Inventions . . . of visitors from Outer Space . . . of Far Traveling . . . Adventure in Dimension . . . Worlds of Tomorrow. 562 pages.

THE LONG, LOUD SILENCE *by Wilson Tucker* — All Mississippi bridges are permanently CLOSED, to seal off you few thousand "contaminated" Eastern survivors of the BLACK PLAGUE BOMB. You are TRAPPED in a ruthless, primitive new society!

PLAYER PIANO *by Kurt Vonnegut, Jr.* — In the coming Age of Electronics, machines run everything. And when one man rebels, even his trial is conducted by — a *machine*!

WEST OF THE SUN *by Edgar Pangborn* — Robinson Crusoe had it easy! *This* shipwrecked crew of 21st Century scientists is marooned on an unknown planet *billions of miles from Earth!*

The Book Club of Tomorrow is Here Today

IMAGINE — ANY THREE of these full-size, brand new, SCIENCE FICTION BOOKS — yours for only $1.00! Each is crammed with science thrills of the future . . . written by the most sought after Science-Fiction writers of today. A $7.50 to $10.45 value, complete and in handsome permanent bindings!

The founding of this SCIENCE FICTION BOOK CLUB is a recognition of the fact that Science Fiction has won a place as an important *new kind* of literature. But how is one to read the BEST new Science Fiction books . . . without wasting time and money wading through good and bad alike?

To enable you to ENJOY the finest without worrying about the cost, the Club has arranged to bring you the BEST brand new full length books FOR ONLY $1 EACH (plus a few cents shipping charge) — even though they cost $2.50, $3.00 and up in publishers' editions! Each month's selection is described IN ADVANCE, in the Club's free bulletin, "Things to Come." You take ONLY those books you really want — as few as four a year, if you wish.

SEND NO MONEY—Just Mail Postcard

TO PROVE you will enjoy membership in this new club, we are making this amazing offer to new members! Your choice of ANY 3 of the new Science Fiction masterpieces (described here) — AT ONLY $1 FOR ALL THREE. Two books are your gift for joining, and one is your first Club selection. This liberal offer may have to be withdrawn at any time. So mail postcard RIGHT NOW to: **SCIENCE-FICTION BOOK CLUB, Dept. GX-12, Garden City, New York.**

WHICH 3 DO YOU WANT FOR ONLY $1.00?

SCIENCE-FICTION BOOK CLUB
Dept. GX-12, Garden City, New York

Please rush me the 3 books checked below, as my gift books and first selection. Bill me only $1 for all three (plus few cents shipping charges), and enroll me as a member of the Science Fiction Book Club. Every month send me the Club's free bulletin, "Things to Come," so that I may decide whether or not I wish to receive the coming monthly selection described therein. For each book I accept, I will pay only $1 plus shipping charge. I do not have to take a book every month (only four during the year I am a member) — and I may resign at any time after accepting four selections.

SPECIAL NO-RISK GUARANTEE. If not delighted, I may return all books in 7 days, pay nothing and this membership will be cancelled!

☐ **Astounding Anthology** ☐ **Player Piano**

☐ **Long, Loud Silence** ☐ **West of the Sun**

☐ **Omnibus** ☐ **World Out of Mind**

Name.....
(PLEASE PRINT)

Address.....

City..... Zone..... State.....

Selection price in Canada $1.10, plus shipping. Address 105 Bond St., Toronto 2. (Offer good only in U. S. and Canada)